Acknowledgements

All praise belongs to God who guided me and provided me with the means to make this journey a reality through the Margaret Warner Graduate School of Education and Human Development, University of Rochester, Rochester, New York.

My family has lived through this with me. I like to thank my wife, Hannah, who equally has earned this degree with me, having made so much sacrifice supporting me. My three children, Nana-Fatimah, Ahmadu Umar, and Ali Junaid, I love you very much and your silent support was instrumental in carrying me through this journey.

Thank you, Dr. Jerome P. Lysaught, expert in Health Professions Education. You took me under your wings and exposed me to different medical and health professions training models. When I started I really did not know if I would complete this, it seemed so big, but you took me through piece-by-piece allowing me to get past the big picture.

Thank you, Dr. Craig R. Barclay, expert in cognition and autobiographical memory; you guided me through the human development and the educational psychology fields. You truly encouraged me with your honesty and willingness to accept me as I am.

Thank you, Dr. Harold Wechsler, expert in governance, business education and disciplines in higher education; you took me through the rough maze of governance and disciplines in higher education and assisted me with my survey instruments. You shaped my interest and passion for school redesign educational services.

Much gratitude goes to my sponsor, Dr. Ellen Santora. You stayed with me throughout the writing of this dissertation; correcting, editing and giving me valuable insight that enabled me to complete this work. Thank you for your patience and for accepting me for who I am.

Thank you, Dr. Brian O. Brent and Dr. Logan Hazen, for being there when I most needed
your support. Your encouragement and wisdom is much appreciated.

Thanks to all my unnamed friends and colleagues. You have encouraged me along the way and your support is much cherished.
Dedication

I want to dedicate this dissertation to my father, Alhaji “Bami” Ahmadu Dan-Nufawa, my mother, Hajia Nana-Fatimah Ahmadu Dan-Nufawa and my guardian, Ahmadu Kwambo, all of whom have passed on. You opened my eyes to possibilities and encouraged me to seek knowledge. You taught me about family, love, service to others, integrity and being true to myself; I love and missed you dearly but knowing you are at peace. You were the best parents ever; thank you forever.

Finally, I dedicate this work to my brothers and sisters and to the entire Dan-Nufawa family. Thank you for your silent support across the distance from Nigeria.
Abstract

The role of mentoring and mentoring relationships has been the focus of attention in education circles where interest has grown in developing lifelong learning skills. To this end, mentoring programs and services have been used in education and health care training fields as well as in business settings, to prepare new practitioners.

According to the literature, mentoring has been used to effectively transfer knowledge into practice. When mentoring does occur, there are benefits for those who receive mentoring; those who do mentoring and those involved in the operation of mentoring programs. Accordingly, the satisfaction derived by individuals engaged in mentoring, also, translates into benefits for the organization that promotes mentoring.

This study attempted to answer three distinct but inseparable questions. First, is mentoring occurring between health care students and members of the health care faculty at the New York Chiropractic College (NYCC)? Second, what perceptions do health care students and faculty hold about the benefits of mentoring and mentoring relationships? Third, do the perceptions of health care faculty and health care students on cross-gender and cross-ethnic mentoring influence the perceived benefits of mentoring and mentoring relationships at this health care training setting?

This study employed a mixed case study design and primarily, is interpretative in nature. Those factors within the organization of health care training and teaching that fostered health care student's interactions with members of the health care faculty were analyzed to determine whether these interactions resulted in establishing mentoring relationships. The study findings indicated that mentoring, in fact, occurred during health care training at the NYCC; faculty and
students both reported that they perceived there were benefits for entering into mentoring relationships in a health care training setting; and faculty and students both reported that cross-ethnic and cross-gender issues did not affect the perceived benefits of mentoring received by students or given by faculty. This study established a need for mentoring at the different stages of chiropractic training and concluded with some recommendations to the New York Chiropractic College.
# Table of Contents

Acknowledgements ...................................................................................................................... i  
Dedication .................................................................................................................................. iii  
Abstract ...................................................................................................................................... iv  

Table of Contents ....................................................................................................................... vii

Chapter One .................................................................................................................................... 1  
Overview and Rationale .............................................................................................................. 1  
Statement of the problem ............................................................................................................ 2  
Purpose of the Study .................................................................................................................... 6  
Background of the Study ............................................................................................................. 7  
Significance of the Problem ....................................................................................................... 12  
Research Questions .................................................................................................................... 13  
Definition of Terms .................................................................................................................... 13  
Summary ................................................................................................................................... 15

Chapter Two .................................................................................................................................. 17  
Review of the Literature ............................................................................................................. 17  
Mentoring in Professional Training ............................................................................................ 17  
Mentoring in the Health Care Professions .................................................................................. 23  
The Theory-Practice Gap ........................................................................................................... 26  
The Role of Mentoring in Health Care Education ...................................................................... 31  
Models of Mentoring Programs ................................................................................................. 34  
Mentoring Preparation ................................................................................................................ 39  
Evaluation of Empirical Studies on Mentoring in Health Professions ....................................... 41  
   Mentor Perceptions .................................................................................................................. 41  
   Protégés’ Perceptions .............................................................................................................. 45  
Research and Methodological Issues ......................................................................................... 51  
Summary ................................................................................................................................... 52

Chapter Three ................................................................................................................................ 55  
Methodology ............................................................................................................................... 55  
Overview of Research Methods .................................................................................................. 57  
Review of Case Study Research .................................................................................................. 57  
   Using an Existential/Phenomenological Approach to Case Study Research ......................... 59  
The Setting .................................................................................................................................. 62  
Data Collection Methods .......................................................................................................... 67  
   Quantitative Data .................................................................................................................... 67  
   Qualitative Data ..................................................................................................................... 69  
Organization of the Case Database ............................................................................................. 71  
Case Study Protocol ..................................................................................................................... 72  
Data Analysis ............................................................................................................................... 73  
Validity and Reliability ............................................................................................................... 78  
Portraying the Research Findings ............................................................................................... 81  
Conclusion .................................................................................................................................. 81
Chapter Four ................................................................................................................................. 83
Results ....................................................................................................................................... 83
Demographic Information ......................................................................................................... 85
  Faculty Demographics .......................................................................................................... 85
  Student Demographics .......................................................................................................... 89
Negative Cases ........................................................................................................................ 100
General Findings Based on Quantitative Data ........................................................................ 103
Summary of Interviews ........................................................................................................... 106
  Summary of In-depth Student Interviews ....................................................................... 107
  Summary of In-depth Faculty Mentor Interviews .......................................................... 110
Conclusion .............................................................................................................................. 114
Chapter Five ................................................................................................................................ 115
Conclusion and Recommendations ......................................................................................... 115
Conclusion .............................................................................................................................. 117
Recommendations ................................................................................................................... 123
References ................................................................................................................................... 129
Appendices .................................................................................................................................. 140
  Appendix A: Health Care Student Survey Questionnaire ....................................................... 140
  Appendix B: Health Care Faculty Survey Questionnaire ..................................................... 155
  Appendix C: Health Care Student Pre-test Cover Letter ...................................................... 172
  Appendix D: Health Care Faculty Pre-test Cover Letter ...................................................... 173
  Appendix E: Health Care Student Interview Guide ............................................................... 174
  Appendix F: Health Care Faculty Interview Guide ............................................................... 175
  Appendix G: Health Care Student Cover Letter ................................................................... 176
  Appendix H: Health Care Faculty Cover Letter ................................................................... 177
  Appendix I: Memo from Dr Bob Ruddy to Hussain B. Ahmed: “Mentoring at NYCC” ........ 178
  Appendix J: Summary of Faculty Demographic Characteristics ........................................ 179
  Appendix K: Summary of Student Demographic Characteristics ....................................... 180
  Appendix L: Summary of Health Care Student Survey (N=153) .......................................... 181
  Appendix M: Summary of Health Care Faculty Survey (N=96) .......................................... 192
  Appendix N: Frequency Distribution of Faculty Demographic Characteristics at NYCC ....... 205
  Appendix O: Professional Profile of NYCC Faculty .............................................................. 206
  Appendix P: Frequency Distribution of Student Demographic Characteristics at NYCC ..... 207
  Appendix Q: Frequency Distribution of Student Gender by Trimester at NYCC ................. 208
  Appendix R: Frequency Distribution of Students Who Had a Mentor by Gender and Ethnicity
  ................................................................................................................................................. 209
  Appendix S: Frequency Distribution of Students Who Perceived Mentoring By Trimester . 210
  Appendix T: Frequency Distribution of Students by Trimester Who Perceived the Impact of
  Mentoring................................................................................................................................ 211
  Appendix U: Frequency Distribution of Students by Trimester Who Perceived the Benefits of
  Mentoring................................................................................................................................ 212
  Appendix V: Health Care Faculty Satisfied with the Mentoring They Offered ................. 213
Chapter One

Overview and Rationale

In order to assist the college in developing a more effective training process for its students, through this study I examine the existence and quality of mentoring at a chiropractic college. Mentoring as a process of training has received increased attention in the health care literature, in particular, because such a one-to-one relationship appears to offer some hope in solving the problem of the theory-practice gap. It remains quite difficult for academically-trained doctors, nurses, or chiropractic practitioners to transfer their knowledge and skills into actual performance in a clinical context without the help of an experienced individual who can guide and help them in a hands-on way. For this reason, more and more health care training institutions are looking to the apprentice-like relationship that can develop between a mentor and mentee as a new context for experiential learning in clinical settings. What constitutes helpful mentoring, however, remains an issue in the literature, and the role that the perceptions of teachers or students play in the development of a mentoring relationship requires more study. Therefore, through my inquiry I reviewed the perceptions of teachers and students involved in mentoring at the New York Chiropractic College to determine the extent to which mentoring is believed by its stakeholders to have impacted the quality of overall training at the college.
Statement of the problem

Mentoring has been acknowledged by an extensive body of literature as an important element of training in the progress of students or trainees. Research studies have looked at the role of mentoring relationships in the pace of progress made by students or trainees in various fields (Allen, 1999; Andrews, 1999).

In traditional studies on mentoring, researchers broke down the mentoring process into a series of discrete phases, each of which enabled students or trainees to pass along to the next level and ended when they had made sufficient progress to stand on their own feet. For example, when these phases are geared to time lines, they will include: *initiation* (six months to one year, in which the mentor-protégé relationship is established), *cultivation* (two to five years, in which the various functions the mentor can provide and the protégé needs are identified), *separation* (six months to two years, in which the mentor-protégé relationship substantially changes for better or worse) and *redefinition* (an undefined period of time, in which the relationship ends or becomes strictly collegial) (Darwin, 2000; Johnson, 2003). Moreover, those who have researched and published within the field of mentoring have also developed a model that distinguishes between major and minor mentors. Most academic advising and other forms of fairly formal and purely professional mentoring is minor mentoring, entailing advisement on course selection, progress toward graduation, and helping students complete programs. Major mentoring, more common in the professional context, includes all of the elements of minor mentoring but is enriched by the framework of a personal relationship that develops between mentor and mentee. The nature of this relationship encourages the mentor to seek out opportunities for the mentee and constructively help him or her in their careers, a process that often end in a long-term
personal relationship. In general, the literature on mentoring finds major mentoring to be far more effective in helping mentees enter into fields or move through organizational systems, and, more importantly, has far greater impact on performance (Dancer, 2003; Ellinger, 2002). As a result, the literature on mentoring appears to be headed toward developing a model of mentoring that is more personal and long-term, as opposed to simply offering advisement on technical or procedural issues. However, in the context of today’s professional worlds, where change is the only constant, it is increasingly acknowledged that persons need mentoring at all stages of their careers, and that mentoring must become part of the fabric of organizational life.

Given the development of the mentoring literature, it remains a serious problem that many organizations continue to offer mentoring programs with various staff-related and organizational obstacles. As a result, these organizations continue to work with ineffective mentoring models (Darwin, 2000; Ellinger, 2002). Dancer (2003), has noted that the structure of the organization, the system it has in place to recognize the value of mentoring, and even the culture of the organization with regard to countenancing on personal relationships, all impact the quality of the mentoring. In highly competitive climates, in some schools or professions, for example, such a climate will undermine the spirit of mentoring.

In the area of health care, two factors, according to studies, complicate the formation of strong mentoring relationships (Dancer, 2003). One issue is diversity; as there is a large population of gender and ethnically diverse students and faculty in health care, it must be asked if the cross-ethnic and cross-gender nature of some of the mentoring relationships that are formed in health care training impact the quality of the mentoring, either positively or negatively. A second issue revolves around the very nature of health care training itself. In the case of the field of health care training studied in this report, chiropractic care, it calls for intensive clinical
training entailing the successful execution of a number of experiences ranging from taking patient histories to performing any number of adjustments or manipulations, all of this occurring in a very hands-on way. As a result, chiropractic training, because it is clinical and experiential, cannot help but be personal. The fact that many of the competencies in chiropractics are not universally agreed upon, but varies from state to state, also reinforce the personal, experientially-bound nature of training in the field. In practice, students must develop knowledge and psychomotor, interpretative, problem-solving and philosophical skills (Bougie, 2000). In addition, chiropractic institutions and the practice of chiropractics in general still face numerous challenges in gaining a foothold in the context of mainstream health care and within the structure of managed health care delivery. In the field, “clinical education is still the weakest part of the educational process” (Bougie, p. 19), and this problem is exacerbated by the fact that many chiropractic trainees quickly move into practice and thus will be in need of continual professional development after they have formally left school.

Studies of the training process of chiropractic students have revealed that these students would greatly benefit if there were more observation, modeling, coaching and other mentor-like fashioning of their training during the clinical phase of their education (Dancer, 2003). This problem is made still more pressing by findings from the general medical literature that, in most trained doctors-to-be, a serious theory-practice gap remains that can only be closed with the help of a hands-on, mentor-type or one-on-one supervision similar to that found in clinical settings (Bougie, 2000; Calkins & Epstein, 1994). Studies have shown, moreover, that it is not enough for the student to understand how to put theory into practice, but that he or she must learn from an experienced person, and that learning is only done when the experienced professional makes his or her implicit knowledge explicit to the beginner. As a result of this problem, a growing
interest in mentoring is apparent in the literature on, for example, nursing education. In nursing, cognitive apprenticeships in which the mentor utilizes such educational practices as modeling, coaching, scaffolding, and exploration in order to pass his or her knowledge onto others are becoming more common (Gardner & Proctor, 2004). As the clinical education literature increasingly looks to the idea of context and the notion that true learning is embedded in the context of practice, mentoring has also become important.

The literature on mentoring in health care, however, continues to experience difficulty in defining the nature of mentoring relationships in the context of clinical practice or training (Gardner, 2004). A mentor has been described as everything from an evaluator of a procedure, to a role model, to a trusted friend. Studies have shown that mentoring in health care training brings with it many benefits, and not just to those in the mentor-mentee dyad but also to the organizations that offer mentoring (Dancer, 2003). Mentors themselves often report that they decided to become mentors because they, in turn, had had positive experiences with mentoring when they were young (Johnson, 2003). Mentoring has also been found to be helpful in reducing the attrition of nurses (Greene & Puetzer, 2002). At present, the literature on mentoring has developed a number of different models for the mentoring process, and research has attempted to determine what makes some mentoring experiences successful and helpful, and others not. To that end, other studies have sought to explore the perceptions of the stakeholders involved in the mentoring process (Johnson, 2002). These studies are relatively rare and in one study, which set out to find out more about the perceptions of those involved in a mentoring relationship in a health care training setting, organizational issues were given more attention than the personal or psychosocial side of mentoring. Overall, the report found that mentees could only perceive “support” in general terms, while the mentors involved all expressed various attitudes about how
to be mentors (Milner & Bossers, 2004). As a result of this current state of affairs, the literature is in need of more studies on the perceptions of those involved in a mentoring relationship, especially with regard to whether or not personal mentoring is more effective than mere professional advisement.

This study then examines the problem of mentoring in a clinical context in the field of chiropractic training. The study looks at the perceptions of faculty/staff and students with regard to the quality of the mentoring relationship that they were able to take part in during the course of training at the New York Chiropractic School. The role of perceptions of mentoring and mentoring relationships on the outcome of training is of special interest in this study. If, based on stakeholder perceptions, a positive and effective model of mentoring can be created for use at the subject institution; this may help the practice of chiropractics overcome some of the documented difficulties in its current training procedures.

Purpose of the Study

This study is concerned with exploring the nature of the perceptions of health care faculty and students at the New York Chiropractic College, with regard to the quality, importance and effectiveness of the mentoring that occurs at the location. The study specifically seeks to determine whether, through the mentoring that is being offered, mentoring relationships are being formed between students in the third & fifth, sixth & eighth and ninth & tenth trimesters of study and members of the health care faculty. In order to determine whether mentoring is occurring at this site, I used a concept of mentoring which entails mentor concern for both the professional and psychological/personal needs of students. The presence of mentoring or not will
be determined by student responses as to whether or not they feel that their professional as well as personal/psychological needs are being met through mentoring.

Background of the Study

The concept and nature of mentoring remains “elusive” in the literature (Dodgson, 1986; Johnson, 2000). Most studies have found that mentoring is a complex process that is interactive in nature and primarily occurs between two persons of differing levels of expertise and experience. Because of the inequity in the level of experience between the mentor and the mentee, the advisement of the mentor creates a developmental context through which the mentee proceeds through a series of stages in which mutuality, compatibility, respect, professionalism and collegiality grow (Carmin, 1988). In the overall literature on mentoring, the ultimate nature of the relationship between the mentor and the mentee appears to fall into one of two kinds of relationships; either the relationship is entirely about professional development, or it involves both professional and personal development of the protégé. In the latter kind of relationship, the mentor thus takes responsibility for development of both the professional and personal aspects of the protégé’s life.

The literature on mentoring has also presented another way of ascertaining the types of mentoring relationships established in the process. In a discussion of mentoring types, Darling (1989) distinguished between major and minor mentors, with major mentors being those mentors who do in fact meet the personal and professional needs of the protégé, while minor mentors have only some impact, directly or even indirectly, on the student’s development. In this construct, the telling factor determining whether or not the mentor is major or minor is whether
or not an emotional bond was created in the context of the relationship. Overall, major mentors are believed to be far more influential on protégés than minor mentors. At the same time, the literature acknowledges that different kinds of mentoring relationships develop in different fields. In the academic field, for example, an academic advisor may serve as a mentor, and yet in most cases, the relationship, while extremely helpful to the student in terms of planning a course of study or moving up in a department, is strictly professional (Darling, 1989; Andrews & Wallis, 1999).

In order for a mentor to be classified as a major mentor, according to Darling, the mentee must be attracted to the mentor, and perceive the mentor to be a role model, which in turn causes the mentor to wish to support and help the mentee, first by offering him or her encouragement and support, then by undertaking to help smooth transitions, open doors, and make contacts, that may help advance the mentee. The literature has also determined that a major mentor has other qualities that make this kind of mentor more desirable. Accordingly, a major mentor is often a respected figure in the field, one who has perhaps gained some attention from the media or is openly emulated by others in the field (Darling, 1989).

A minor mentor, however, is not to be discounted simply because he or she does not have a high profile in the field. For example, in the case of an academic advisor in health care training, the mentor is most likely to be of a minor nature. However, the mentor in this context most likely has responsibilities both as a teacher and as an academic advisor. In the role of an advisor, the health care mentor usually is limited to guiding and directing the health care student through the program, and deals with such issues as course selection, adequate progress toward goals, and managing transitions in the curriculum path (Dancer, 2003). At the institution being studied, the New York Chiropractic College, the mentor also has the responsibility of intervening to prevent
academic difficulty for the student, should the student run into trouble in any part of the progress through the program. While advisement is not restricted to interventions, much of the advisement does occur in this context (Ellinger, 2002).

The literature has also sought to define ideal models of mentoring. The Dalton-Thompson model of mentoring suggests that a mentee moves from a phase of dependence on the mentor to one of independence (Andrews & Wallis, 1999). From the field of nursing, and echoing the major-minor delineation in the classic literature is the Collegial Mentoring model, which places emphasis on the nature of the relationship that develops between the teacher and student nurse (Thorpe & Kalischuk, 2003). The model makes use of a distinction between the micro-realm, defined as the personal or bonding space created between mentor and mentee, and the macro-realm, which represents all of the larger contexts in which the mentoring relationship takes place. For example, these larger contexts will include the culture of the organization, institution type and the nature of the professional field (Ellinger, 2002). The optimal result of this model is that a collegial relationship develops out of the mentoring process, such that collegiality replaces competition as the primary nature of the climate of the institution. The Egan Skilled Helper Model (Dancer, 2003) also places emphasis on the development that occurs in mentees as a result of the mentoring relationship, so that they are better enabled or encouraged to reach their goals. Overall, then, the mentoring literature appears to be favoring a mentoring model that places a greater emphasis on building a lasting relationship rather than simply managing specific procedures.

Mentoring has been found to be especially important and helpful in the area of public education (Anderson, 1988; Wunsch, 1994). In education, mentoring between seasoned teachers and new teachers, and also between teachers and students, has been found to enrich student life,
and help new teachers enter the field and adjust to its realities. Mentoring has also been found to be quite helpful for minorities, both teachers and students, trying to navigate the inequities of a system. To this end, studies have shown that mentor-protégé relationships are very important for the career development of minorities and for women (Betz, 1987; Galbraith, 1995). These studies have also suggested that mentoring works best for minority and women teachers and students if the mentor-protégé relationship is such that the mentor is willing to act as an advocate for the mentee and initiate dialogues with others on behalf of assisting the protégé move up in the profession.

On the one hand, studies in education have shown that overall mentoring has been effective in improving instructional processes, student and faculty relations, professional enhancement and faculty development (Anderson, 1988; Brown, 1987; Bey, 1991; Huling-Austin, 1988; Wunsch, 1994). On the other, the academic mentor at an academic health care training college is not characterized by the emotional bond that develops between a mentee and a major mentor; the mentor is not a role model, the mentor does not marshal support for the mentee, and the mentor is not, in most cases, a respected member of the field whose charisma or contacts have the power to open doors for the mentee (Dancer, 2003). In this regard, the literature has drawn a clear distinction between a major and minor mentoring relationship, and there is some question as to whether the minor mentoring relationships established at the college can have any truly positive impact on the students.

A solution to this problem is perhaps provided by the literature on mentoring in business, which finds that, in spite of the fact that mentoring is often minor in nature, the mentoring offered still serves students well, especially in terms of introducing them into the business field. In the case of business, case studies have shown that if a student seeks to move into business
without a mentor he or she can experience what has been termed “reality shock” and may fail to adjust to the realities of the business world. Studies have, therefore, shown that even minor mentoring is still helpful and effective in helping newcomers adjust to the field because mentoring provides individuals with a support system. Studies have also shown that this support mechanism helps newcomers move through the system without being shocked by its realities.

Johnson (2000) presents a model of mentor behavior for higher education that reinforces this direction of interest, as it argues that only mentors with character and virtue can help mentees achieve success in a field.

In sum, the literature has constructed a general model distinguishing major and minor mentoring and generally, has found the former to be more beneficial. However, with regards to different fields, more work still needs to be done: to define mentoring and to determine what works best for mentees. While studies have shown that major mentoring works best for minority mentees, a more general statement as to the role of major mentoring for all students is necessary. Thus, this study zeroes in on whether or not all health care students, both minorities and non-minorities, share in the perception that on-site major mentoring is beneficial. The goal of the study is to bridge the gap in the mentoring studies created by the fact that while major mentoring has been found to be helpful to minority students, no studies have conclusively extended this finding to non-minority students. It is hoped that by expanding the study of the importance of major mentoring to non-minority populations, a greater understanding of the dynamics of mentoring can be derived.
Significance of the Problem

The problem of the transfer of both professional and personal relationship skills, in the context of a mentoring relationship, is significant for a professional or trade school such as the New York Chiropractic College. At this health care training site, personal skills and expertise are obtained through primary, hands-on training and learning (Council on Chiropractic Education, 2005a). In this context, studies have shown that it is reasonable to anticipate that teachers and students of different backgrounds will possess different perceptions about how primary knowledge and skills are acquired or transferred in a professional training setting (Atkins & Williams, 1995). If this is true, then it follows that different perceptions will directly influence the benefits of mentoring perceived by faculty/staff and students during training that emphasizes one-to-one learning opportunities. The difference in these perceptions between teachers and students may therefore impact the nature of the mentoring relationships formed in the training process.

An added element of significance in exploring this problem is derived from studies that report that every effort must be undertaken to ensure that health care providers, as well as those who train them, are knowledgeable of and sensitive to all issues which may impact the perceptions of those seeking health care services. As faculty and students must interact with persons of different backgrounds, they must be knowledgeable about human relationship development in the context of health care service delivery. Research on mentoring has shown that human interaction can be structured to enable human qualities of all involved to be developed more fully. The development of flexibility with regard to others’ perceptions toward mentoring in the context of health care training and service delivery is to be encouraged as well.
Research Questions

This study poses three research questions:

1. At the New York Chiropractic College, the location where the study is conducted, is mentoring occurring between health care faculty and health care students?

2. What perceptions do health care students and health care faculty hold about the benefits of mentoring and mentoring relationships during training?

3. Do the perceptions of health care faculty and health care students on cross-gender and cross-ethnic mentoring affects the perceived benefits of mentoring and mentoring relationships at this health care training setting?

In essence, the questions I raised in this study were whether mentoring was occurring, its perceived benefits, and whether cross-ethnic and cross-gender issues affected the perceived benefits of mentoring at the NYCC. My investigation revealed that: Mentoring, in fact, occurred during health care training; both faculty and students reported they perceived the benefits of mentoring; and they also reported that cross-ethnic and cross-gender issues did not affect the perceived benefits of mentoring received by students or given by faculty.

Definition of Terms

Academic advisor: As distinguished from other potential mentors, an academic advisor functions as both a teacher and as an advisor, and, in his or her advisement role, serves mainly to guide and direct students toward program completion as they fulfill their graduation requirements. The function of the academic advisor is to assist the student in course selection, monitor academic progress, and pace progression through the curriculum towards graduation. In the mentoring
literature, academic advisor-based mentoring is usually classified as minor (Darling, 1989).

Health care faculty: New and continuing health care faculty and professional staff instructing and/or supervising the health care training processes between the first and tenth-trimesters of training at the New York Chiropractic College, Seneca Falls, New York.

Health care students: Repeating and continuing health care students in any one or more of their ten trimesters of training in the health care school curriculum at the New York Chiropractic College.

Mentor: A health care professional whose influence can be felt on the health care student's welfare and professional success. He or she is an individual who has chosen to purposefully guide, direct and assist a younger or less experienced individual in the development of his or her psychosocial and career growth needs. If the mentoring relationship is defined as major, then the individual mentor has qualities that allow the younger or less experienced other to have a one-to-one personal relationship with him or her, and thus encourage the mentor taking action on behalf of the mentee (Carmin, 1988; Darling, 1989; Kram, 1983; Phillips, 1977). To this end, major mentors meet both the personal and professional needs of the protégé and minor mentors have some impact on the protégé’s development.

Protégé: A potential health care practitioner who has less experience and is in training to acquire the professional tools as well as the attitudinal skills necessary to practice health care delivery or do health care research. This individual can be influenced and may seek meaningful relationships
with mentors that will contribute to his or her psychosocial and professional growth needs (Darling, 1989; Kram, 1983). (Note: The terms “protégé and mentee are used interchangeably throughout this study and considered to mean the same thing).

Summary

This study seeks to determine whether or not faculty and students at a chiropractic college have perceptions, positive or negative, regarding the benefits of mentoring and mentoring relationships during training. Literature has informed us about the importance of the perceptions of stakeholders in the mentoring process, and how perceptions can inform us about the extent to which the benefits of mentoring and mentoring relationships are experienced, in part or whole, to account for the positive or negative influence of mentoring. The study therefore explores mentoring as a possible solution to various problems cited by the literature in the challenge to bridge the theory-practice gap during training in the field of chiropractics. The results may also clarify the nature of mentoring and what works best for mentors and mentees, alike, in order to assist the literature in coming to some agreement on a best practice model of mentoring in the health care field, with its emphasis on hands-on, experiential and often personal interaction in clinical practice on a daily basis. A summary result of the study is being shared with the New York Chiropractic College and those who participated in the in-depth interviews who indicated their desire to receive a summary report of the study.
Chapter Two

Review of the Literature

There is a substantial body of literature on mentoring; much of it originates in the fields of business and management and in the generic “workplace”, where the first models were developed. Generally, these early models have been adapted for use in the health care training environment as health care training, itself, struggles to bridge the theory-practice gap. The literature lists some fundamental principles of mentoring roles, relationships, and processes, outside of the health care professional journals. These principles include: relationship emphasis-establishing a climate of trust in which protégés feel comfortable communicating; information emphasis-offering tailored advice based on protégé’s current plans and goals; facilitative focus-encouraging the protégé to consider alternative views and options; confrontative focus-challenging the protégé to examine any unproductive strategies or behaviors; mentor model-motivating the protégé to take necessary risks; and protégé vision- encouraging the protégé to take initiative and become an independent learner.

Mentoring in Professional Training

Darwin (2000) provides a useful analysis of the essential constructs that inform mentoring research and model development. The functionalist perspective of mentoring sees mentoring as a means of career advancement and success through relationships that are primarily social in nature. Effectively, functionalist mentoring is “associated with recycling of power within workplace relationships” by protégés who seek powerful individuals with sufficient
influence within an organization to advance their careers. Functionalists also see mentoring as *developmental*, in the sense that it occurs primarily at the beginnings of careers and involves middle-aged, senior workers and younger, less experienced new workers (Darwin, 2000).

In earlier work, Kram (1983, 1985, as cited in Darwin, 2000; Johnson, et al., 2003) proposed a model of mentoring that included phases geared to time lines: *initiation* (six months to a year, in which the mentor-protégé relationship is established), *cultivation* (two to five years, in which the various functions the mentor can provide and the protégé needs are identified), *separation* (six months to two years, in which the mentor-protégé relationship substantially changes), and *redefinition* (an undefined period of time, in which the relationship ends or becomes strictly collegial).

More recently, however, models of this sort have been re-examined, in the light of sweeping changes in the development of individuals’ careers (Thorpe & Kalischuk, 2003). Mentors in mid-career are themselves seeking mentors and learning new skills, while beginning workers may be more competent than more experienced workers in some skill areas. Further, individuals rarely make lifelong commitments to a single employer, mid-life career changes are becoming increasingly common, and lifelong learning has been firmly established—all of which make mentoring relationships more difficult to establish and less likely to extend for long periods of time.

*A radical humanist perspective* on mentoring is a view of the power relationships within organizations and of the structural dynamics of organizations themselves. These perspectives have developed in tandem with constructs like the *learning organization*, which is conceptualized as a set of fluid arrangements within organizations that can adapt and change according to internal and external influences on the organization’s mission and goals. Radical
humanist mentors in learning organizations presumably exist in a “climate that encourages risk taking, dialogue, and horizontal relationships as a means of creating new knowledge,” so that “mentoring becomes a collaborative, dynamic, and creative partnership of coequals, founded on openness, vulnerability, and the ability of both parties to take risks with one another beyond their professional roles” (Darwin, 2000).

From the radical humanist perspective, even senior managers are continually learning, the culture of the workplace is focused on learning, and all employees are involved in learning to one degree or another. This changes the mentoring relationship in terms of the relative organizational power of the mentor and protégé, making them co-learners. The hierarchical structure of health care organizations, with their parallel medical, nursing, and allied health professional organizational structures and overall lack of democratic culture, does not lend itself easily to a radical humanist perspective on mentoring, which is why most models of mentoring that have been developed for and applied in health care organizations tend to be clearly functionalist in nature.

Johnson (2002) is among those who have described the various obstacles that may face those attempting to design and implement mentoring programs within organizations. There may be organizational or departmental obstacles, including the structure of the organization itself, its methods of recognizing and rewarding the value of mentoring performed by senior members, and the organizational culture. Johnson observes that, in some educational and organizational contexts, students are encouraged to be competitive, thus undermining the spirit of a mentoring culture that supports all protégés democratically.

Diversity is not only an issue in the health care professions but in the field of mentoring as well. A number of scholars and practitioners have repeatedly called for more research in this
area (for example, Ellinger, 2002). When the issue does arise in the mentoring research, it generally refers to the problems or obstacles inherent in cross-race and cross-gender mentoring relationships and processes. While a complete discussion of these problems and obstacles is well beyond the scope of this review and the current research, it is nonetheless important to recognize that issues of gender, race, and culture routinely arises in the processes of mentor selection and matching mentors and protégés and must be considered by those designing and implementing mentoring programs. As Darwin (2000), among others, has pointed out, gender issues are often associated with power issues, just as there are often power discrepancies in mentor-protégé relationships in a wide range of settings. Johnson (2003) adds that mentors involved in cross-race, cross-gender, or cross-cultural relationships with protégés need to be aware of additional differences in learning and relational styles in order to adjust their own styles of role modeling and advisement.

According to the Council on Chiropractic Education Standards, “the purpose of chiropractic professional education is to provide the student with a core of knowledge in the basic and clinical sciences and related health subjects sufficient to perform the professional obligations of a Doctor of Chiropractic” (CCE, 2005b, p. 15). To qualify for accreditation, chiropractic colleges must offer students at least 4200 instructional hours of education, much of which is characterized as clinical training. The primary aim of clinical training for chiropractic students is to require certain levels of “experiences” in taking patient histories, performing examinations, interpreting cases, conducting radiographic studies, diagnosing, performing adjustments or manipulations, and engaging in case evaluation and management.

In 2000, there were 16 accredited chiropractic colleges in the United States (Phillips, 2000); the current list maintained by the Council on Chiropractic Education (CCE) contains 17,
although some are branches of the same institution located in different parts of the country (CCE, 2005a). Typically, graduates of these programs take the National Board of Chiropractic Examiners (NBCE) examination and meet state-level licensing requirements, although many states now accept the NBCE and graduation from an accredited college in lieu of a separate state-level licensing examination.

Phillips (2000) has observed that the colleges accredited by the CCE differ in the length of their programs, admission requirements, and, perhaps most significantly, in their “philosophical interpretation of what chiropractic is and how it should be practiced.” In Phillips’ view, the differences among the colleges on the latter issue are “dramatic” (p. 10), suggesting that the profession has not yet matured as a profession to the point where it has established universal standards for education and clinical practice.

In terms of practical clinical experiences, Phillips notes that while all of the accredited colleges had at least one outpatient clinic, he was “not aware of any college clinic boasting about its patient volume or revenue generation, which suggests that the college-related health care delivery vehicles are marginally adequate with respect to mock practice experience” (p. 10).

Bougie (2000) is among those who have pointed out that competencies in chiropractic practice are not universally agreed upon, but depend on state and national legislation that defines the scope of practice, and on the effects of health care reform measures, particularly managed care. The history of chiropractic education in the 20th Century is a history of growth in requirements. Beginning in 1935, the National Chiropractic Association’s Committee on Education Standards was formed and renamed as the Council on Chiropractic Accreditation in 1947. In 1974, it became the agency the U.S. Office of Education designated as the official accrediting body on chiropractic education. Since then, admissions, graduation, and licensing
requirements have grown steadily more standardized. However, the central fact of the chiropractic profession is that the license is far more important than the educational process leading to that license, and that, to date; states have not defined competencies in their licensing procedures.

Compared with medical students, chiropractic clinical clerkships average 1,405 hours, while medical students spent an average of 3,467 hours in practical internships, and residencies. On the other hand, the medical student has one thousand fewer hours of lectures and laboratory education than the chiropractic student. There are preceptor-ships, postceptor-ships, internships, and other post-graduate programs—including paid mentoring—available to chiropractic graduates, but few go on to a clinical “apprenticeship” of any kind, preferring to go directly into individual practice (Phillips, 2000). This suggests that continuing education is critical to the professional growth and development of the field.

In schools of chiropractic, emphasis is on the development of a variety of different types of skills: psychomotor skills (patient care via manual treatment and diagnostic work), knowledge skills (recall of facts), interpretive skills (relating to historical, examination, and laboratory data), problem-solving skills (differential diagnosis), perceptual skills (a keen sense of observation), and philosophical attitudes and skills (a humanistic, caring attitude) (Bougie, 2000, pp. 15-16).

In Bougie’s view, chiropractic colleges are facing a variety of formidable challenges, including investing in the kind of training faculty members need in order to train students in the competencies that will make them competitive in the current era of managed care and health care reform. Phillips (2000) observed that there is very little funding available from any sources for the kinds of advanced training and development that chiropractic college faculties need. There is some evidence that the profession has taken notice of the educational needs of its members,
including the annual education conference held by the Association of Chiropractic Colleges, and of the need for a cohesive philosophy of chiropractic care, as evidenced by the formation of the American Academy of Chiropractic Physicians for the purpose of promoting a philosophy of chiropractic care. Nonetheless, according to Bougie, “clinical education is still the weakest part of the educational process” for chiropractors (p. 19), and in addition, they need continuing professional development for continuing education to meet re-licensing requirements.

Of particular interest to the current research is that the CCE curriculum requirements for accreditation refer to ensuring that students receive supervision, oversight, and evaluation—both in their classroom work and their clinical experiences—but make no mention of mentoring. It is clear, however, from the detailed descriptions of the clinical skills required of chiropractic students that students would benefit greatly from observations, modeling, coaching, and a number of the other functions associated with mentoring.

An issue that is attracting growing attention within the chiropractic profession is that of diversity, particularly as individual chiropractors compete for patients within an increasingly constricted health care reimbursement environment. As Phillips (2000) noted, the profession is dominated by whites in the United States, although diversifying in terms of race and ethnicity as it expands internationally.

Mentoring in the Health Care Professions

Education and training in the health care professions varies according to the professional discipline being considered. In order to establish a context for the current study, selected research in the fields of medicine, nursing, allied health professions, complementary and alternative
professions and higher education practices has been reviewed in order to identify the range of approaches used to mentor individuals in the clinical aspects of their work. What is clear, even from a superficial review of the health care education literature, is that while the structure of education for doctors of medicine appears to follow a long-established traditional model (undergraduate pre-medicine, medical school, internships, residencies), the nursing education model has been undergoing steady evaluation and reform as the nature of nursing and the demands on nurses have been changing in response to sweeping changes in health care reform in the United States.

The literature on education for the health professions varies widely in its approach and scope, from a multitude of anecdotal reports (from students and teachers) to surveys of students and graduates, and further to attempts to conceptualize the educational process within certain health professions. Peyton, Morton, Perkins, and Dougherty (2001), for example, described the mentoring process for graduate students in sociology and gerontology who are preparing for clinical and research careers, providing a useful overview of the value of mentoring in professional preparation.

In the complementary and alternative medicine education literature, there is a clear trend toward adapting traditional medical and nursing educational methods. This is especially found in Richardson, Tate, Leonard, and Patterson’s (2003) work on the use of clinical supervision and reflective practice by complementary and alternative medicine educators, and the research conducted by Shaw, Mist, Dixon, et al. (2003) on the need for and process of training complementary and alternative medicine researchers.

In the general medical and nursing literature, there are segments concerned with educating students for specific sub-professions, such as the suggested curriculum for training
nurse practitioners proposed by Gardner, Gardner, and Proctor (2004); with specific educational techniques in specific settings, such as the study of individualized clinic-based tutorials reported by Tschudi, Bally, and Isler (2003); and with specific aspects of medical training, such as the program devised to address supervisor-medical resident relationship problems described by Sinai, Tiberius, de Groot, et al. (2001). In these discussions, mentoring has been found to be effective in improving instructional processes, student-faculty relations, professional enhancement, and faculty development (Peyton, et al., 2001).

Review of pertinent mentoring literature in higher education presents many and varied schemes of mentoring to choose from. The literature has documented efforts to address human and resource development issues, in different educational settings and by different cultures, using mentoring to advance as well as develop personal and professional competence.

In higher education, mentoring belief stems from the idea that educational managers learn best through observing, doing, commenting and questioning, rather than listening passively. This type of learning or internship, noted Schon (1987), is the modern-day equivalent of the apprentice, who may be described as someone who is "initiated into the traditions of a community of practitioners and the practice world they inhabit. Therefore, this initiation provides the opportunities to learn their conventions, languages, and appreciative systems, their repertoire of exemplars, system knowledge and patterns of knowing-in-action" (pp. 155-177).

Regardless of where mentoring is practiced; mentoring literature has identified five essential features for structured mentoring programs. These are:

1. the selection of mentors;
2. their preparation and development;
3. developing relationships between mentor and protégé;
4. operation and organization of the program; and

5. evaluation of participants.

It is worth noting that a growing consensus exists among mentoring researchers that some features of mentoring may be common across cultures and situations (see for instance, Fagan & Walker, 1982; Reiche, 1986). Structured mentoring, according to the literature, involves matching mentors and protégés. According to Gray and Gray (1985), matching is a process with unpredictable outcome. For example, some partnerships will work well while others will be less successful. Therefore, it stands that the matching process should account for factors that might determine a pairing's success, such as values or personality differences and preferred learning experiences. Other factors, such as cross-gender matching, may not be quite so obvious but nevertheless important. Such issues can have a bearing on the relationship and should be approached collaboratively, with mentors and protégés as well as the organizing body each having inputs.

The Theory-Practice Gap

Closing the theory/practice gap falls within the purview of mentorship. The primary function of any structured mentoring program is on the role development it provides for the protégé. Focus on this primary function enables the mentor, for example, to use his or her professional experience in the work environment to guide the protégé in bridging the gap between theoretical knowledge and clinical practice. In the process, the protégé is assisted to increase his or her level of independent functioning. Without this type of structure, who is the person who helps with bridging the theory/practice gap? Who helps the protégé reflect on the
scripts s/he is generating? Who assists reflection by providing feedback? Who reassures the protégé’s confidence when in doubt? In this regard, the mentor's role becomes instrumental in aiding the development of practical knowledge and skills for the newcomer to meet basic expectations in practice.

The gap between theory learned in school and actual clinical practice has been addressed recently, particularly in the nursing literature, effectively focusing attention on what kind of learning takes place in clinical settings, what students learn in such settings, and how they learn. Landers (2000) reviewed the literature with a view toward identifying the role of supervising nurses with regard to closing the gap between theory and practice for nursing students. The literature showed that professionals believe that it is important for nursing supervisors to make sure that theory makes sense to students in the context of a clinical setting by integrating theory with practice in ways that students can understand. Unfortunately, supervisors are often more oriented toward assessment and evaluation of students’ clinical practice than toward teaching. In nursing, the practice of assigning preceptors is common and traditional, although there is increasing interest in mentoring in nursing education. Landers (2000) noted a difference between them: while the mentor offers “support”, the preceptor works directly with the student in the clinical setting.

Cope, Cuthbertson, and Stoddart (2000) are among those who have focused on the context in which students in the health professions develop their clinical competence. In their view, clinical expertise comes from experience in specific contexts and situations in which “knowledge” is applied appropriately, but the major difficulty for clinical educators is to make the implicit knowledge of experienced clinicians explicit, so that knowledge can be made available to beginners.
It has long been the view in the physician and nursing professions that a key to developing clinical skills is “practice in authentic contexts” (Cope, et al., 2000, p. 851); in other words, *experiential* or *situated* learning should be the preferred method of educating clinical novices. Essential to this type of learning is a kind of apprenticeship. Brown, Collins, and Duguid developed a conceptual model of this type of learning called *cognitive apprenticeship* in which experts “focus the learner’s attention towards the salient cognitive features of the activity in question” (1988, as cited in Cope, et al., 2000, p. 851). In Brown, et al. *cognitive apprenticeship model*, the educational strategies to make implicit knowledge explicit, include *modeling, coaching, scaffolding, fading, articulation, reflection, and exploration.*

In this model, *modeling* involves the expert’s demonstration of practice skills and calling attention to the significant elements of the skills. In *coaching*, experts observe beginners’ performance and provide feedback; *scaffolding* and *fading* support the learners’ completion of clinical tasks, gradually letting the learner perform tasks independently. The use of *articulation* encourages learners to describe what they are doing and why; *reflection* encourages learners to compare their competence with the expert’s. As learners increase their competence, they are asked to devise alternative approaches to tasks in the process of *exploration.*

Clinical assignments or placements have also come under increasing scrutiny by educators of health care professionals. Cope, et al. (2000), for example, contend that when placements are too short in duration, learning may actually be inhibited because learners do not have time to become part of the professional community in a particular setting and are, in effect, observers whose isolation is merely underlined by their temporariness.

Rolfe and Sanson-Fisher (2002) used a literature review as the basis for a model of teaching and learning that could be applied to training medical professionals in clinical skills.
The authors sought to identify the principles of adult learning that had particular relevance to teaching and learning clinical skills. One of the first principles they identified was that of active learning, which is a form of experiential learning, or learning by doing that is learner-centered rather than teacher-centered and generally self-directed. In the context of clinical learning, this principle refers to creating learning situations in which students are responsible for making diagnostic and case management decisions on their own, rather than observing teachers’ practice and decision-making.

Another important principle that emerged from the review of the literature conducted by Rolfe and Sanson-Fisher (2002) was the critical role of experience in learning, which appears as part of the argument for exposing students to as many actual cases and patients as possible during their training so that they get as much practice as possible, under the supervision and guidance of teachers, preceptors, and mentors who at some time or another, are involved in a one-on-one teaching situation with the student.

A number of theories have been advanced to explain the differences in clinical reasoning—diagnosis and case management decision making—including the concept of illness scripts proposed by Schmidt, Norman, and Boshuizen (1990, as cited in Rolfe & Sanson-Fisher, 2002). These authors suggested that experienced clinicians use specific cognitive structures to sort and organize information about patients in their memories, so that over time these structures become patterns that clinicians recognize and that enable them to retrieve information from memory about similar patients and conditions. As applied to clinical training, the Schmidt, et al. model proposes that “the more opportunity students have to see patients, the richer their databases of illness scripts will be, and the more opportunity they will have to build organized schemes of relevant knowledge in their memory which will later be quickly retrievable” (Rolfe

The role of feedback in clinical learning has also received substantial support in the literature, particularly the effectiveness of feedback that is embedded in the students’ clinical practice (Johnson & Carpenter, 1986; Papa, Aldrich, & Schumacker, 1999; as cited in Rolfe & Sanson-Fisher, 2002). The notion of embeddedness in clinical education appears to be gathering consensus among clinical educators in a variety of health professions, in recognition of the importance of context in clinical training. As Rolfe and Sanson-Fisher have commented, “learning which is directly relevant to future experiences is not only a powerful motivator, but an imperative in curricula” (p. 349).

It has long been recognized in the health care and other professions that a major element in training is professional socialization or acculturation, which, many believe, can only be learned in authentic contexts (Cope, et al., 2000). Bower, Diehr, Morzinski, and Simpson (1998) are perhaps typical of those who emphasize the socialization function of mentoring in their work on testing a mentoring model for academic teaching faculty, the Daloz support-challenge-vision model (Daloz, 1986, as cited in Bower, et al., 1998). In this model, an attempt is made to achieve a balance in the mentoring process between supporting protégés and challenging them, and to inculcate “vision” in protégés through role modeling. Bower, et al. applied the Daloz model in their development of the Formal Mentoring Program in the Department of Family and Community Medicine at the Medical College of Wisconsin in a program intended to socialize new faculty members, support their career planning, and facilitate collaboration with colleagues. While their analysis of the success of the Program was based on a survey of a small number of protégés who were asked whether they would recommend their mentors, the results are nonetheless of interest for their suggestion that protégés welcomed being set to challenging tasks
and collaboratively setting challenging goals based on their own career intentions and visions. This model thus challenges the notion that the mentor is the fount of wisdom transmitted in a one-way process to the passive protégé.

In a study of Scottish nursing students, Cope, et al. (2000) found that being accepted socially and professionally in the placement work place was at least as important as having an opportunity to practice nursing skills. It was clear from the participants’ responses in this study that “social support and reassurance” were very important to nursing students when they began their clinical placements. Cope, et al. suggests that nursing mentors need to know how important it is for students to be included into their placements, both socially and professionally, and integrate this awareness into their supervision and teaching.

The Role of Mentoring in Health Care Education

Johnson (2003) has characterized mentoring as “a distinct professional relationship” that is quite different from the other kinds of support that the experienced provide to beginners, such as instruction, supervision, advisement, and counseling (p. 129). This review of the literature has revealed that those who design and implement mentoring programs continue to have difficulty determining just what the relationship is between mentor and protégé in terms of what is exchanged between them as the relationship progresses. As discussed below, mentoring programs and models may be distinguished by their essential orientation—toward psychosocial and professional support, for example, or toward providing information and instruction.

In the UK, major nursing education reform produced Project 2000, a large-scale initiative in which students were required to receive some mentoring during their clinical placements.
Andrews and Wallis (1999) are among the researchers who have evaluated various dimensions of Project 2000. Of particular value to the current research is their examination of the relationship between mentoring and supervision in clinical settings. As these authors and many others have pointed out, the meaning of the term mentor in a nursing context is not clearly understood. For some, the term refers to supervision and assessment; for others, mentoring is primarily a teaching function, much like that of the preceptor-ship, which is the traditional term used for nursing clinical experiences and the experienced nurses who supervise them during these experiences.

The English National Board for Nursing, Midwifery and Health Visiting (ENB) defined a mentor as “a person who would be selected by the student to assist, befriend, guide, advise, and counsel” (Andrews & Wallis, 1999, p. 203). In this definition, the roles of supervision and assessment or evaluation are noticeably absent. The Welsh National Board defined mentorships as “long-term relationships between people, one of whom usually is significantly older and/or more experienced than the other…. The nature of the relationship is implicit, suggesting as it does, a recognition of potential and a concern for the individual’s well-being, advancement, and general progress” (Andrews & Wallis, 1999, p. 203). Again, the emphasis is on professional development, rather than on supervising and evaluating the protégé’s performance in clinical settings. By contrast, the Welsh National Board defined preceptor-ship as a short-term relationship, the purpose of which was teaching and evaluation.

Greene and Puetzer (2002) define the roles of mentors and protégés in nursing differently. The mentor is described in functional terms as “a role model, socializer, and the educator in training certain specified tasks and interactions” (p. 69), while the protégé is described in terms of personal characteristics, including “openness to receiving help, learning
and caring; career commitment and competence; a strong self-identity; and initiative” (p. 69). Looked at it in adult learning terms, this is the traditional construct of the expert teacher who is the source of knowledge and information and the passive student to which knowledge and information is transmitted.

The argument in favor of mentoring for health care professionals has been relatively well articulated in the literature. Dancer (2003) and Johnson (2003) are among those who have noted that the student or protégé and the mentor are not the only individuals who benefit from a well-designed mentoring program or a positive mentoring relationship. Mentors, for example, have reported that their decision to become mentors was strongly influenced by an early positive experience as protégés (Allen, Poteet, & Burroughs, 1997, as cited in Johnson, 2003).

Health care organizations that sponsor and support mentoring benefit from improvements in communication, staff retention, and improved clinical performance. As Greene and Puetzer (2002) found, the development and implementation of a mentoring program within the nursing staff can be an effective retention method because such a program supports relationships between new and experienced nurses and team-building, and provides motivation for experienced nurses because their clinical expertise is recognized and valued. In addition, the entire health care work force can benefit from the kind of open and professionally supportive culture that prevails in organizations that support mentoring because of the openness of such a culture and the blame-free atmosphere that tends to prevail (Dancer, 2003; Johnson, 2003). Finally, patients benefit from the improvements previously mentioned in collegial communication, stability in staffing and the enhanced performance of clinical tasks that can result from positive mentoring.

There is a segment of the clinical education literature that has focused on mentoring in
medical and other health care professional schools as a primary means of helping students deal with the stresses involved in undergoing clinical education. The programs described by Calkins and Epstein (1994), for example, are representative of this approach, which is essentially a psychosocial support approach. The appearance of this particular report in the literature more than ten years ago is a sign of the evolution of the role of mentoring in clinical education. At that time, a number of supportive programs—some of which involved mentors—were being developed in response to drop-out rates or other signals that students were not coping well with the stresses and demands of curricula and needed more formal sources of support. The role of mentoring has evolved beyond mere support, and is beginning to be seen by professional clinical educators as having a larger role in clinical education.

Models of Mentoring Programs

A number of scholars have attempted to describe the various phases of the mentoring process; virtually all agree that the mentoring relationship and the needs of protégés are not static over time. The Dalton-Thompson model, for example, proposes that the process includes dependence (the phase in which the protégé needs intensive supervision), independence (the phase in which mentor and protégé are relatively equal and more collegial, requiring less supervision); supervising others, and managing and supervising others (Myers & Schinn, 1990, as cited in Andrews & Wallis, 1999). This is perhaps the most general model; as Myers & Schinn noted, many nurses remain in independence phase throughout their professional careers.

As noted earlier in this review, much of what has appeared in the professional journals about mentoring in health care training has originated in the context of nursing. Greene and
Puetzer (2002), for example, describe a model in which they define the roles of mentor and protégé, the process of mentoring in nursing, and the evaluation of the program’s success. The Greene-Puetzer (2002) model of the nursing mentorship process includes the dimensions of planning, implementation, evaluation, and feedback. The process is thus quite general. Overall, however, the process is conceived of as a kind of orientation to both the particular clinical job to which the beginning nurse is assigned and to the nursing profession itself. Further, it is conceived of as primarily a teaching process and relationship, with ongoing evaluation and feedback closely integrated into the process and the relationship. There are those who would argue that the evaluation function should be removed from the mentoring relationship, and that, in nursing, the functions of the teacher (preceptor or nurse educator) should be different and separate from the functions of the mentor.

Thorpe and Kalischuk (2003) recently reported on their development of the Collegial Mentoring Model in which mentoring is conceived to focus on relationships between nurses. The Model is visualized as a circle with an inner dimension, the micro realm, which includes such intangible behavioral aspects of nurses’ relationships as making time for togetherness, creating ambience, and promoting beingness (defined as having the freedom to be oneself) and an outer dimension, the macro realm, which represents the context of nursing relationships, including the social, political, economic, and cultural aspects of that context. The desired outcome of implementation of this model is the personal and professional growth of the nurses involved, although not in any formal sense, but rather in the sense that collegial relationships replace competitive ones and in the sense that the personal freedom built into the model encourages professional growth. While this model is clearly a supportive one, the authors believe it has larger potential “to enhance the evolution of nursing and to help build a strong professional...
culture among nurse educators” (p. 13). Although this model is not clinical but designed for nurse educators, it has been included here because it represents one of the directions that nursing education is taking, and one of the ways in which practitioners are attempting to re-define and expand the role of mentoring in education.

Waters, Clarke, Ingall, and Dean-Jones (2003) describe a mentoring program for nurse managers, a professional development program for experienced nurses, rather than for nursing students. Again, while this program is not, strictly speaking, applicable to the focus of the current research, it is nonetheless of interest here because of its use of the full range of mentoring functions—coaching, demonstration and modeling, motivation, and feedback and rewards. The study is also of interest because it included the participants’ perceptions, a research approach discussed in more detail in a later section of this review.

Of more direct applicability to the current research is the work of Phillips, Davies, and Neary (1996a, 1996b) on the Project 2000 initiative implemented in the UK and Wales to induce sweeping reforms in nursing education. An important part of Project 2000 was the introduction of mentoring for nursing students as a requirement of their training. On a policy level, one element of interest is the Project’s insistence on using clinical placements for learning, rather than for staffing purposes (1996a), which was the traditional practice, and is a practice that lingers in some clinical training programs today in the United States.

In their review of the results of implementing the mentoring aspect of Project 2000, Phillips, et al. (1996b) were able to identify specific issues that must be addressed in the future, some of which were generic to implementing mentoring programs in any setting, and some of which were particular to implementing mentoring programs in clinical education. The generic issues were related to the selection of mentors and the process of matching them to protégés; this
issue occurs throughout the mentoring literature. The issues that relate to clinical education in particular had to do with mentoring functions. In the Project 2000 program, mentors functioned as teachers, evaluators, and supporters of students, a combination that led to some negative experiences for students and became a source of stress for mentors. As discussed elsewhere in this review, it is beginning to be clear that supportive mentoring is not compatible with an evaluative function. In addition, the assignment of a teaching function to mentors led to confusion among nurse teachers in clinical settings—this too has been an issue for a number of other practitioners attempting to introduce mentoring into nursing education. It is clear that the need to separate teaching from mentoring is beginning to emerge in the literature as a direction for the future.

Nolinske (1995) proposed a theoretical model of supervision that involved several clinicians in the course of a student's placement at a particular site. This model expanded on the collaborative model in which two or more students are supervised by two or more clinicians. The rationale for such a model lies in what are perceived as the diverse needs of students as they develop clinical skills and professional attitudes and identities during their clinical education experience. Nolinske described the Multiple-Mentoring Model by identifying a continuum of peer relationships developed by students in their professional education. According to the author, there are information peers, who are primary sources of information, collegial peers, who provide encouragement and support in both personal and professional areas, and special peers, with whom rapport and emotional connections are established. Though Nolinske’s (1995) model addresses the lose arrangement of mentoring relationships, it nonetheless say nothing about the value of formal early-stage mentorship in a health care training site. I will revisit Nolinske’s model later in the recommendations section of this study.
There are a variety of other models and approaches to mentoring that have been described and evaluated in the literature, ranging from a multidisciplinary mentoring program for students in geriatrics and gerontology (Cotter, Coogle, Parham, et al., 2004) to the program at the University of Wisconsin Medical School that assigns a single mentor to an entire class of medical students (Scheckler, Tuffli, Schalch, et al., 2004). Some practitioners have focused on developing “job descriptions” for mentors to make their functions and relationships with protégés clearer.

Chambers, Tavabie, See, and Hughes (2004), for example, used the *Knowledge and Skills Framework* published by the National Health Service in the UK as a template for designing a mentor job description. The *Knowledge and Skills Framework* was used primarily to identify the knowledge and skills that a competent mentor should have. The resulting set of competencies were then reviewed by a panel of professionals involved in mentoring and mentoring programs, including administrators, clinical mentors, and protégés. This review subsequently identified the qualifications and experience desired in a competent mentor (see Table 1, Chambers, et al., 2004, p. 224), which is a relatively typical approach to mentor selection, and has been used by others as a framework for planning mentoring training and preparation, as discussed later in this review.

Dancer (2003) has described a mentoring model that approaches the mentoring process as primarily developmental for the protégé and one in which the protégé is the prime actor, rather than the mentor. The *Egan Skilled Helper Model* (Egan, 2002, as cited in Dancer, 2003) is represented by a three-phase process that protégés can use to first assess their current situation and opportunities; second, assess their current needs in relation to their goals; and, third, devise the strategies they can use to reach their goals. In a review of the operating mentoring programs in the UK, Dancer describes the *Doctors’ Development and Mentoring Program*, which was
designed to be offered to working physicians, nurses, dentists, and health care managers. This mentoring program is organized around a series of university-based courses spread over a period of several months. The only one of the operating programs designed especially for students, the *Students in Schools Program*, is aimed at students who have not yet chosen a profession and is more of a career advisement program than a mentoring program. However, it does give students and professionals the opportunity to form potential mentoring relationships at an early stage in the students’ career.

**Mentoring Preparation**

While nearly every scheme for a mentoring program at least mentions the need to “train” mentors for their roles in such programs, the fact of the training can range from a brief orientation session to a full-out training program. Connor, Bynoe, Redfern, et al. (2000) have described the latter type of program, *The Northern and Yorkshire Region Doctors’ Development and Mentoring Network*, which began as an investigation of the opportunities available to doctors, especially female doctors, for finding and working with professional mentors. The Network eventually evolved into a full-scale initiative designed to help working physicians acquire mentoring skills, to serve as a framework for continuing professional development for senior physicians who were likely to serve as mentors, and to develop a network of experienced and beginning physicians within the region. Of particular interest in the results of the evaluation conducted by Connor, et al. is the response of participants to aspects of the program related to skill development. The participants found, for example, that being able to observe demonstrations of mentoring skills was of most value to them, which suggests that mentors need
the same kinds of learning experiences that protégés need, as part of the process of preparation. The participants also gave positive ratings to being able to practice their newly-learned skills in small groups, discussed authentic issues and problems with peers, and received feedback from the program facilitators as they progressed. These responses, too, suggest parallels to what protégés have said that they find positive about mentoring.

Much has been written about the characteristics of the “good” mentor. Andrews and Wallis (1999), for example, included “approachability, effective interpersonal skills, adopting a positive teaching role, paying appropriate attention to learning, providing supervisory support, and professional development ability” (p. 204), a definition which is both too vague and too narrow at the same time. Darling, (1984, as cited in Andrews & Wallis, 1999) found in a study that nurses wanted their mentor to be “inspirer, inventor, and supporter,” (p. 204), a considerably nobler and less practical definition.

It is to Johnson (2002, 2003) that researchers owe a conceptual model of mentoring competence. Although the model was originally developed in the context of higher education faculty development, it appears to have wider applicability for mentoring in other settings. Johnson has approached the subject in such depth that he is able to distinguish between mentoring competency and competence as a mentor. It is his view that a mentoring competency refers to a specific skill, attitude, and body of knowledge that a mentor possesses, whereas competence as a mentor includes all of a mentor’s separate competencies, as well as the mentor’s understanding of them and the ability to use them to adapt to and manage the process of mentoring to achieve predetermined goals.

The Johnson model, which he characterizes as triangular, has three dimensions—mentor character virtues, mentor abilities, and mentor competencies—that are conceptualized as forming
the sides of a triangle, with virtues at the base, signifying their central role in supporting the structure of conceptual mentoring competence (see Table 1, Johnson, 2002, p. 135). The virtues referred to include integrity (at the heart of the ability to inspire another and deserve trust in a relationship), caring (expressed as “respect and sensitivity to the welfare and needs of others”), and prudence (represented by planning and exercising “good judgment in decision making”) (Johnson, 2002, p. 130). In terms of abilities, the Johnson model includes cognitive, emotional, and relational skills. Finally, mentor competencies include mentors’ knowledge and skills in relation to mentoring itself, such as the relevant developmental aspects of particular protégés; the phases of a mentoring relationship; methods for deliberately structuring mentoring relationships, such as matching, expectations, and goal-setting; the primary functions of the role in relation to the protégé’s career development, psychosocial needs, and role modeling; and the various ethical considerations that can arise in mentoring relationships, particularly in cross-gender and cross-race mentoring relationships.

Evaluation of Empirical Studies on Mentoring in Health Professions

Mentor Perceptions

Very little research has been conducted that focuses solely on mentors’ perceptions of their mentoring experiences, especially research conducted in health care settings. Perhaps typical of the genres that do consider mentors’ perceptions is the qualitative study conducted by Allen and Poteet (1999). This study interviewed both mentors and protégés, and had two very broad research aims: to identify “ideal” mentor characteristics and to describe what both mentors
and protégés can do to make the most of the mentoring experience. It is important to note that the mentors interviewed in this study had themselves been protégés at one time in their careers, so that they viewed their experiences as mentors in the context of those earlier experiences.

On the subject of “ideal” characteristics for mentors, the semi-structured interviews conducted by Allen and Poteet (1999) yielded 150 responses that were initially coded into 37 dimensions and eventually collapsed to 20 categories, more than half of which had three or fewer responses. The characteristic most often mentioned by both mentors and protégés was mentors’ listening and communication skills. Other characteristics mentioned often, in descending order, included patience, knowledge of the organization and industry, ability to read and understand others, and honesty/trustworthiness.

On the rather vague subject of making the most of a mentoring relationship, responses were coded into 12 dimensions, eight of which received three or fewer mentions. Most often, mentors commented that they could get the most out of mentoring by “establishing an open communication system with reciprocal feedback” (p. 67). The responses of protégés echoed the importance to them of open communications with their mentors. The congruence of the finding that communication skills were the most significant mentor characteristic and that open communication was the action both mentors and protégés could take in order to make the most of the experience sets a significant benchmark in research in this area.

Milner and Bossers (2004) also conducted a qualitative study, using semi-structured interviews. In their case, however, the protégés were occupational therapy students and the mentors were faculty members of the university in which the students were enrolled. While the study is of interest for its investigation at two different points—at the end of the four year study program and again at some time after the students had graduated—these two phases did not
appear to be significantly different in terms of results.

The Milner-Bossers (2004) study is of interest because it is representative of research that is able to detect the essential orientation of mentors toward their role. Once that orientation is identified, a number of other characteristics of the mentoring experience tend to follow. The majority of the mentors interviewed in this study viewed the primary purpose of the role as “to facilitate the professional development of the student through guidance and counsel,” while a significant number of others also reported that their role was “one of sponsoring or helping students to identify with the professional environment” (p. 103). Both perceptions of the mentor’s role are similar in that they are more oriented to professional socialization than to learning. In addition, this study showed that the mentors interviewed believed that their relationship with protégés was intended to be a limited relationship, focused solely on their undergraduate work, with an emphasis on coaching and role modeling.

The only study identified in the literature that was conducted in a health care setting and that focused solely on mentors’ perceptions of their mentoring experience is the research reported by Atkins and Williams (1995). This, too, was a qualitative study, conducted via semi-structured interviews with 12 registered nurses who had mentored nursing students during their clinical placements. As in the Milner and Bossers (2004) study, the mentoring relationship was limited, in this case to the nine weeks of the clinical placements. Mentors, asked to identify the different aspects of the mentoring role that they experienced, identified a surprisingly complex array of activities. They provided psychosocial and professional support, they facilitated the students’ learning and their own through role modeling and reflective discussion, and they found the experience of working in partnership with their protégés the most significant and rewarding part of the experience.
The other aspects of the mentoring experience described by the participants in the Atkins and Williams (1995) study are related to the organizational aspects of their role. They reported, for example, that they were often under stress because of the clinical demands on them from patients and colleagues and the demands of their protégés. This role stress was a common feature for all of the mentors interviewed. In addition, all of the respondents mentioned the importance to them of collegial support in their role as mentors. The mentors appreciated the primarily psychosocial support of their nursing colleagues, in the sense that their colleagues understood what they were doing and that it was important work. A number of the participants also mentioned the importance of having the support of nursing teachers during protégés’ clinical placements, suggesting that the nursing teachers may not have understood the nuances of their own role in relation to the mentors’ role in supporting the protégés.

Atkins and Williams (1995) make a highly significant point in their analysis of the results of their interviews. In discussing the nurse-mentors’ reports that they were often conflicted about the varying demands on them during clinical placements in which they acted as mentors, the authors suggest that the response to these demands depends on the nurse-mentor’s orientation to the role of mentor. Those who considered mentoring a natural part of their professional responsibilities as nurses perceived a lower level of stress than those who considered mentoring as an additional responsibility that had been assigned to them, in some cases without their participation in the decision. This finding highlights three major difficulties of mentoring in health care education contexts: 1) the professional attitudes of mentors toward the mentoring process, 2) the degree to which their own training and development influences their attitudes and 3) the willingness of health care organizations to exert an effort to modify these attitudes.

In an unusual study focused on medical students’ perceptions of the learning that
occurred during a process by which the students observed and evaluated the behavior of their preceptors in a clinical setting, the preceptors—role models themselves—responded positively to the process (Jones, Hanson, Longacre, 2004). Among the benefits reported by the faculty were the opportunity to reflect on their own clinical practice in discussions with students as well as the focus on patient and family interactions enforced by the structure of the process in which they were engaged. This study is discussed in more detail in the following section of this review.

Protégé Perceptions

As noted, there has been much more research conducted that examines protégés’ perceptions of the value of mentoring than of mentors’ perceptions. One of the major themes identified in the research on protégés’ perceptions has been that of “support”. Protégés are frequently asked to rate the level of “support” they received from their mentors or to describe the types of “support” they received. As Landers (2000), among others, has observed, however, the term support does not have a universal definition among researchers.

While there is more to choose from for review in the research focused on protégés’ perceptions of mentoring, the studies selected for review here mirror the proportions found in the research literature in terms of the sample populations that have been studied. Most of the research has come out of the nursing education literature, with far less originating in the physician or other health education literature.

As is true of the other categories, a substantial segment of the physician education literature consists of first-persons; anecdotal reports of individual experiences (see, e.g., Longhurst, 1994). Of the full-scale studies conducted in a medical school context, the research
conducted by Jones, et al. (2004) is of interest for its use of a student observation process in order to elicit perceptions of mentors’ functions. The *Students’ Clinical Observations of Preceptors (SCOOP)* process provide medical students with written cues that can be used to focus their observations of their preceptors as they model clinical skills and interactions with patients.

The particular interest of the Jones, et al. (2004) study is that it attempts to evaluate the process by which students in medical school learn *professional* behavior. As noted earlier in this review, one of the benefits of mentoring often cited is that it supports the professional socialization of students. Jones et al. are among the few researchers to have addressed this particular aspect of mentoring in a focused way. As the authors note, much of what passes for professionalism education in medical schools is taught outside of clinical settings on formal and informal occasions when professionals come together for meetings, ceremonies, and other gatherings. As a result, little is known about how students learn—particularly, little is known about how students learn from the modeling that is considered by many to be a staple of medical education.

Using a questionnaire developed from the SCOOP process, Jones, et al. (2004) asked medical students for the results of their observations of their preceptors’ interactions with patients and family members in a pediatric clinic setting. Although most of the participants rated the SCOOP experience as a valuable learning experience, nearly one quarter of those responding reported that they were uncomfortable about evaluating their preceptors, suggesting that the traditional power relationships between students and teachers (or mentors or more experienced professionals) still exert a strong pull. The most obvious advantage of the SCOOP process is that it affords teaching faculty an opportunity in a clinical setting to deliberately model specific
behaviors and interactions, rather than leaving to chance the behaviors that students will be able to observe in clinical encounters. In addition, encouraging students to share their critical responses to what they have observed with faculty members in reflective discussions helps to create the kind of mentoring culture that is open and honest, and that communicates to students that their opinions are valued as a part of a health care team.

As noted earlier, much of the existing research into protégés’ perceptions of mentors and mentoring has originated in the nursing literature. Cope, et al. (2000), for instance, compared the perceptions of their clinical placements in groups of nursing students who had completed a traditional nursing program (20 percent classroom-based and 80 percent clinical placement) or Project 2000, a new diploma program in the UK which requires 40 percent university-based and 60 percent clinic-based preparation. While the focus of this study was on students’ perceptions of the theory-practice gap, the authors were also able to elicit responses of students to the importance of learning in context and of experiencing support for learning in clinical practice situations.

Watson (1999) is also among the researchers who have focused on nursing students’ experience of mentoring within the context of Project 2000 in the UK. Watson conducted a qualitative, phenomenological study of students’ experience of mentoring in one class in order to elicit the students’ lived experience of mentoring during their clinical practice placements. Watson found that the guidelines defining mentoring were sufficiently vague to confuse both students and mentors, so that there was little uniformity in the application of mentoring practices in different clinical settings. From the students’ perspective, their mentors appeared to be unprepared to undertake their mentoring responsibilities and to lack understanding of those responsibilities. At the heart of these perceptions was, apparently, a significant difference
between students’ expectations and mentors’ perceptions of what was required of them.

Watson (1999) concluded that even though mentoring was required as part of the Project 2000 initiative the ENB guidelines were ambiguous so that they could not be uniformly understood or applied. The perceptions of the students of the degree of staff support for mentoring in clinical practice settings and the differing interpretations of the mentoring role by students, clinical staff, and mentors underscore the larger issues that have consistently been identified in the literature related to policy making in health care organizations.

Suen and Chow (2001) used student perceptions of mentoring roles in a Hong Kong university-based nursing preparation program as the basis for developing a tool that could be used to evaluate the mentoring program. This research team also used the ENB guidelines for mentoring which, as Watson (1999) and others found, were too ambiguous to provide the kind of structure needed for the mentoring program. The Suen-Chow study was conducted in four phases: in the first, students’ expectations of mentoring were surveyed and mentors offered one- or two-day workshops in preparation; in the second phase, students’ perceptions were surveyed at the end of their first semester’s experience with mentoring; in the third phase, an evaluative questionnaire was developed; and in the final phase, the questionnaire was distributed to all nursing students who had been involved in the mentoring. As a result of the questionnaire findings, the mentoring workshops were expanded and improved, mentors’ roles were more clearly defined, and a procedural manual for mentors was developed.

The mentoring roles defined in this program—befriending, assisting, guiding, advising, and counseling—were rated by the students in the study in terms of how well mentors fulfilled each role. Overall, students reported that befriending was the least well-conducted role not only by mentors but by clinical staff as well. While students expected to become part of a clinical
team, they were consistently treated like visitors and were effectively isolated from forming professional (or personal) relationships with their colleagues and mentors during their clinical placements. The counseling role was also not performed well by mentors according to the students, yet the students expected to be able to turn to their mentors for support in dealing with the various stresses of their placements.

Cahill (1996), too, studied a group of student nurses operating in the context of the ENB mentoring guidelines and found that similar problems existed. These students also referred to the isolating culture of the clinical settings in which they were placed that separated them from the treatment team and made them feel that they were not being treated as professionals or even as learners. Further, the principal role of the mentors, in students’ perception, was that of evaluator or assessor, so that students tended to shape their work toward the goal of receiving a good report, rather than to focus on learning.

The students in the Cahill (1996) study also reported that clinical staff were not supportive of mentoring, and suggested that there were organizational issues that shaped their mentoring experiences. For instance, a number of students reported that their mentors were often assigned to different shifts, so that their contact with each other was extremely limited. Overall, Cahill found that the students described “varied degrees of interest in them both as people and as learners, limited understanding of the role of mentor and, as a result, considerable variation in the availability, means, and measures of support… offered” (p. 797). Students perceived that their relationships with their mentors were superficial and focused on appraisal of the students’ performance almost exclusively. These studies suggest one of the major negative effects of unsuccessful mentoring is the devaluing of the relationship that in turn, affects the perceptions of both protégés and mentors.
Eby, McManus, Simon, and Russell (2000) are among the few researchers to have concentrated on the negative aspects of mentoring; that they believe deserve full treatment by researchers as a part of the potential for mentoring relationships, only partly because consideration of the negatives tends to focus attention on mentor selection and preparation processes. This team has developed a taxonomy of negative mentoring experiences, both as a cautionary instrument for developers of mentoring programs and as a set of directions to future researchers.

The Eby’s, et al. (2000) taxonomy was developed from a series of interviews with protégés, from which they extracted five broad dimensions of negative mentoring experiences: match within the dyad, distancing behavior, manipulative behavior, lack of mentor expertise, and general dysfunctionality. Within each of these categories, separate themes were also identified, thus providing a structured means for analyzing and interpreting negative mentoring experiences. The analysis of protégés’ negative mentoring experiences revealed several major themes: mentors’ authoritarian attitudes, lack of interpersonal skills, and neglect of protégés (distancing behavior). All of these themes have implications for careful selection of mentors and careful matching of mentors and protégés. The complaint of mentor neglect was extremely intriguing for Eby, et al. who suggested that it warranted more detailed future research. They comment, for example, the mentor neglect could have organizational implications, as suggested earlier in some of the nursing student studies. It could also be attributed to protégés’ expectations of mentoring relationships, which could in turn be an argument in favor of training protégés to be protégés, just as mentors are trained to be mentors.
Research and Methodological Issues

Dancer (2003) is among the researchers who have observed that much of what has been published evaluating mentoring programs in health care organizations has been anecdotal. The design difficulties may be largely responsible, since the study of the effectiveness of mentoring does not lend itself to quantitative research. Connor, Bynoe, Redfern, et al. (2000), who used a survey in their attempt to evaluate a regional mentoring program in the UK, found that they were only able to elicit a superficial view of the program from the physician mentors, hospital administrators, and clinical teachers. Instead, as Dancer and others have commented, the reality of the mentoring experience is more likely to be evoked in qualitative studies that, because they involve intensive case studies or in-depth interviewing, are more difficult to design rigorously.

From this search of the literature have emerged two instruments that hold the promise of being highly useful to research into the effectiveness of clinical training programs in health care in general and the effectiveness of mentoring programs in particular. Till (2004) describes the use of the Dundee Ready Education Environment (DREEM) Inventory in a study of the effectiveness of a new curriculum and of the overall learning climate introduced at Canadian Memorial Chiropractic College. While it is interesting to note that the instrument identified highly specific concerns of the students who experienced the new curriculum—stress, fatigue, and lack of active learning, clinical relevance, and constructive feedback—the concept of using an ongoing diagnostic tool such as the DREEM Inventory is of particular interest because it suggests one means by which chiropractic colleges can launch continuous improvement, research-based initiatives.

The Principles of Adult Mentoring Inventory (Cohen, 1998, as cited in Cohen, 2003) also promises to be highly useful to researchers as well as to designers and developers of mentoring
programs in a variety of settings for its establishment of benchmarks for effective mentor behavior and correspondingly effective protégé (synonymous with mentee in this instrument) behavior. The Inventory includes six behavioral dimensions of effective mentor behavior each of which corresponds to a mentoring role: relationship behavior (trust), informative behavior (advice), facilitative behavior (alternatives), confrontative behavior (challenge), mentor modeling behavior (motivation), and mentee vision-related behavior (initiative). In addition to this model of the “complete” mentor, to use Cohen’s term, the Inventory also includes a list of mentee behaviors that correspond to those of mentors.

This instrument is of interest because it recognizes the roles and responsibilities of protégés in the mentoring relationship, an area of research that is as yet undeveloped. Further, the instrument is highly comprehensive and relatively simple to administer, which makes it highly useful to researchers.

Summary

There is to date very little research on mentoring in the chiropractic educational curriculum, although the signs are there for a development of interest in this means of enhancing chiropractic students’ clinical experiences. The models for the integration of mentoring in health care education may be found primarily in the nursing education literature and the physician education literature, and it is those sources that have been consulted for this review.

Mentoring itself has a long research tradition, although most empirical work has been conducted in business, management, and higher education settings. There are a number of conceptual and theoretical models that have been developed from research in these settings,
perhaps too many to be reviewed here. Nonetheless, the conceptual works reviewed herein have revealed frameworks essential for their potential application to chiropractic clinical education.

The need for mentoring in chiropractic education is directly related to the need for mentoring in other health care preparation programs- to provide a source of effective role models, psychosocial support, and opportunities for reflection on practice experiences, and career advice and encouragement. Mentoring is generally viewed as functional, in the sense that it is focused on professional socialization and career development, or humanist, in the sense that it is focused on learning in a climate that encourages open communication and initiative. It certainly seems possible that the “ideal” mentoring program combines these two perspectives, although no one model has yet done so.

A number of the issues that have emerged from the health care education literature are directly applicable to the need for mentoring in chiropractic education, such as the gap between theory and practice often cited by students and beginners in the health professions. In addition, students and new practitioners have voiced their need for specific kinds of learning situations outside of the classroom, learning in context, learning by doing under caring guidance, and active learning. In these situations, students need more than expert teachers; they need mentors.

Within the field of health care education, mentoring is perhaps more common in nursing than in other professions, possibly because nursing education has a long tradition of experiential, as opposed to theoretical or classroom-based, learning. From these nursing models, it is possible to extract principles that can be applied to clinical training in chiropractic colleges in the dimensions of organizational, interpersonal, and policy factors.

The empirical research on the effectiveness of mentors and mentoring, again primarily conducted in nursing settings, has revealed some issues that appear to be common to all
programs that involve clinical education. These include issues of organization and staffing, the need to integrate learners into clinical staffs, the need to regard clinical placements as learning situations rather than solutions to staffing shortages, and the need to separate the appraisal of students’ performance from the mentoring of their performance. In addition, some research has suggested that students’ expectations of mentoring experiences have not yet received the attention from researchers that they deserve, since these expectations are apparently at the root of students’ perceptions of the effectiveness of their mentors and mentoring programs in which they are involved.

The research on mentoring in clinical health care settings is still in its developmental stage. It is in need of conceptual frameworks developed specifically for these settings and of research instruments specifically targeted for measuring the behavioral and educational roles and expectations of both mentors and protégés in these settings. The current research contributes to the existing literature and advances what is known about mentoring in health care settings.
Chapter Three

Methodology

This study employed a mixed case study design and is interpretative in nature. In it, I examined the factors of a health care training organization that sought to foster interaction between health care faculty and trainees through mentoring relationships. According to the literature, mentoring has been used effectively to transfer knowledge into practice and is effective in making progress along the continuum of professionalism in learning/training contexts. These studies inform us about how the mentor-protégé relationships have functioned in the career development of minorities and women (Betz, 1987; Blank, 1981; Collins, 1983; Reiman, 1991; Galbraith, 1995; Ensher, et al., 1997); and in improving instructional processes, student and faculty relations, professional enhancement, and faculty development efforts (Anderson, 1988; Brown, 1987; Bey, 1991; Huling-Austin, 1988; Wunsch, 1994).

Research studies of the mentor-protégé relationships that focused on the professional and career needs of minorities and women in places of work and learning are constrained, presenting problems of generalization of findings beyond these population groups. The problems encountered in generalizing research findings of the functions of the mentor-protégé relationships beyond minority and women groups are also encountered when it comes to understanding the processes of mentoring. To achieve this level of understanding, I focused on how non-minority individuals as well as their minority counterparts can benefit, from mentoring and mentoring relationships. As suggested by Fincher (1971), to know more about how inputs and outputs are related to production activities in environments of higher education learning,
mentoring research must go beyond the studies of minority and women population groups.

I sought to answer the question of why and how mentoring occurred between health care faculty and students in a chiropractic college. To determine how mentoring relationships were developed, I reviewed research literature on stages of mentoring relationship development. These stages included initiation, cultivation, separation and re-definition (Kram, 1983). Hunt and Michael, (1983) have also termed these stages as initiation, protégé break-up and lasting friendship stages. Further, Phillips (1977) presented a six-stage model for mentoring development which added stages of “sparkle” and “disillusionment”. I adapted Kram’s (1983) classification of stages or patterns of development for mentoring relationship in order to determine whether or not mentoring relationships were being developed between health care faculty and students. Kram’s (1983) stages of mentoring also parallel the general nature of the formation and dissolution of human relationships.

Overall, I explored the “how” and “why” of the mentoring and mentoring relationship processes, between health care faculty and students at the New York Chiropractic College. In so doing, the data generated in this study provided insight into the perceptions held by some faculty members and health care students at the New York Chiropractic College. Data from respondents were useful for determining whether or not mentoring relationships were being established and what the perceived benefits were for faculty and students. In addition to determining whether or not helpful mentoring relationships were being established at the college, demographic data enabled me to explore whether race, ethnicity and gender, influenced the perceived benefits of the mentoring relationships developed between faculty and students. These data pointed to the utility of further studies to ascertain the roles of race, ethnicity and gender in establishing meaningful career development patterns of relationships during health care training.
Overview of Research Methods

According to the literature, complex human interactions are involved in the establishment of mentoring relationships, and the events leading to these relationships occur in a dynamic and fluid learning environment (Yin, 1984). The questions posed in this study were questions of whether or not, mentoring was occurring. Specifically, this study posed these questions:

1. Is mentoring occurring between health care faculty and health care students?
2. What perceptions do health care students and health care faculty hold about the benefits of mentoring and mentoring relationships during training?
3. Do the perceptions of health care faculty and health care students on cross-gender and cross-ethnic mentoring influence perceived benefits of mentoring and mentoring relationships at this health care training setting?

Review of Case Study Research

Case studies represent comprehensive descriptions and explanations of the many components of a selected social situation (Campbell, & Stanley, 1963). My study is a single mixed methods case study of an institution of health care training. I collected and aggregated data to provide an institutional profile as it relates to mentoring relationships and activities.

Research studies designed to better understand individuals, organizations, socioeconomic and political phenomenon, have consistently used the case study design. Similarly, the case study design has been a common research strategy in education,
psychology, political science, and urban planning and development (Yin, 1984). In these study situations, the need for case study design arose out of the desire to understand complex social phenomena and trace emergent phenomena over time (Stanley, & Campbell, 1963). In this study, I utilized a multiple baseline design to track individual datum and aggregated data across subjects (i.e. between students and faculty members) to arrive at a sense of what was going on at the institutional level. Tracking individual datum and aggregating these data across subjects enabled me to trace emergent relationships between health care students and members of the health care faculty and to determine whether or not mentoring was occurring at the NYCC.

According to Yin (1984), three conditions are essential in order to consider a case study design as valid. These conditions are: a) the use of “how” and "why" research questions, b) the extent of control that an investigator has over the actual behavioral events, and c) focus on a contemporary event. Further, Merriam (1988), among others, has identified five components of research designs that are especially important to the case study design. These components are: 1) the type of study questions; 2) the study propositions (if any); 3) the unit(s) of analysis; 4) the logical link between data and propositions; and 5) the criteria for interpreting the findings.

This study met the design requirements of both the components and conditions of the case study design outlined in the literature. I steered the questions raised in this research along the assumption line that some mentoring may be occurring between some health care students and some members of the health care faculty. The criteria for interpreting the findings of this study along the line of my assumption, therefore, were the trimesters in training (i.e., year and
level in health care training) and the availability of a mentoring service for students and faculty along the health care training curriculum path. This strategy enabled me to link data to the study questions.

*Using an Existential/Phenomenological Approach to Case Study Research*

My study is essentially a case study that was informed by phenomenological methods but was not a phenomenological study per se. I used the case study methodology including interviews that were structured somewhat like those in a phenomenological study. Phenomenology has been described as both a philosophy and a descriptive research method. As a philosophy, phenomenology sees a person as part of the environment (Van Manen, 1990). In this regard, the world shapes the individual and the individual shapes the world. As a research method, Tesch (1990) explains that phenomenological research involves extracting as well as describing the "lived experiences" of study participants with a focus on what people experience and how they experience what they experience.

There are two implications of this perspective. The first implication is that what is important to know is what people experience and how they interpret the world is important to understanding what they know. This is the focus of phenomenological inquiry. The second implication is methodological. One way for a person to know what another person is experiencing, is to experience the phenomenon indirectly for oneself through interviews. This leads to the importance of participant observation and in-depth interviewing utilized in this study. In either case, the reporting of phenomenological findings requires that the "essence or nature of an experience be adequately described, in language, if the description is to reawaken
or show us the lived quality and significance of the experience in a fuller and deeper manner" (Van Manen, 1990).

Van Manen (1990) further explains that phenomenology is not a production of empirical or theoretical observations or accounts. Instead, phenomenological researchers are interested in four aspects of the human experience:

1. lived space,
2. lived body,
3. lived human relations and
4. lived time.

Van Manen (1990) has described these "lived experiences" as the starting and ending points of phenomenological research. At the starting point, I gathered information to recall the lived events and feelings of participants and discussed those events in the present moment. At the ending point, all the aspects of human experience reported were taken into consideration with the awareness that participants saw different realities in different situations and with different people and change over time.

This study was concerned with the "lived experiences" of health care students and health care faculty concerning mentoring and mentoring relationships. I selected strategies from the phenomenology method because I assumed that there is an essence or essences of shared experience that is common among health care students and health care faculty in health care training settings. These essences (i.e. structured professional as well as psychosocial development functions of health care training) provided the core meanings that were mutually understood, shared, and commonly experienced by health care faculty and health care students.
through a phenomenon called health care training. Along this line, I bracketed, analyzed, and compared the experiences of health care students and health care faculty to identify the essences of how and why faculty and students engaged in mentoring and mentoring relationships at NYCC.

Data garnered from respondents’ expressions of their "lived experiences" concerning mentoring and mentoring relationships provided the direction to answer the questions raised in the study. As a participant observer who conducted the in-depth interviews, my role was to raise questions concerning participants’ experience with mentoring and mentoring relationships and to hear them recall their feelings, emotions and thoughts about their experiences (see Interview Protocols Appendices E & F).

The processes of health care training undertaken in this study occurred within the real-life context of the day-to-day interaction between health care students and health care faculty. To this end, these events (interaction between students and faculty members) could not be separated from the context (the health care training environment) within which they occurred. This, further, provided another reason for seeing this process as dynamic and not static. Again, these factors suggested the desirability of the case study design.

The end product that emerged out of this exploration and interpretation was a robust, embedded and rigorous description of health care training events (interaction between students and faculty) that pointed to the development of mentoring and mentoring relationships. With this account, I carefully pulled together and linked the questions guiding this study to provide other health care training schools, health educators and administrators with information that could be of value in guiding mentoring and mentoring relationships within the health care
The New York Chiropractic College (NYCC) served as the site for this single mixed case study for two reasons. First, the New York Chiropractic College has shown leadership in the health care training field, having provided chiropractic training since 1919. Second, NYCC recognized the need to explicate a training program to bridge the knowledge and practice gap and led other chiropractic institutions in establishing a formal "mentoring" program to meet students' development and training needs.

Founded in 1919, the New York Chiropractic College started out as the Columbia Institute of Chiropractic and grew through mergers with Columbia College of Chiropractic and the Atlantic States Chiropractic Institute during the 1950s (NYCC Official Catalog, 2000-2002). In 1979, the College was granted an Absolute Charter by the New York State Regents and received professional accreditation of its doctor of chiropractic degree program from the Council on Chiropractic Education and is accredited to award the Doctor of Chiropractic (D.C.) degree. In 1985, the College was awarded regional accreditation by the Commission on Higher Education, Middle States Association of Colleges and Schools (NYCC Official Catalog, 2000-2002, p. 4). In addition, NYCC’s Doctor of Chiropractic degree program is registered with the New York State Education Department and the College is certified by the United States Department of Education.

In the early 1980s, the College made a series of expansion moves to position itself as a
leader of Chiropractic Education. Today, NYCC is centrally located in Seneca Falls, New York, on a 286-acre site and is supported by four Chiropractic Health Centers (CHC) and three off-campus facilities. The CHCs provide the clinical environments for students to intern and apply their chiropractic knowledge and skills to gain experience and confidence necessary to become competent in the practice of chiropractic health care.

Respectively, the CHCs are located in Seneca Falls, Depew, Levittown, and Syracuse, New York. Together, the CHCs and the off-campus facilities provide the NYCC with an integrated health care training campus and orientation. The coordination of training between the CHCs and the off-campus facilities enables the NYCC to fulfill its mission of education, research, and service (NYCC Catalog, 2000-2002, p. 5).

The NYCC attracts students from different parts of the world and has a diverse student population body. Candidates who succeed in getting admissions to NYCC go through a rigorous and competitive admission process. Once admitted into a degree program, NYCC students are expected to maintain satisfactory technical and academic performance throughout their program years. To this extent, NYCC is expected to comply with the academic standards established and monitored by the Council on Chiropractic Education in order to maintain its accreditation status. The curriculum leading to the Doctor of Chiropractic (D. C.) degree requires a minimum of 10 trimesters of 15 weeks (three years, four months or the equivalent of five academic years) of full-time resident study including the clinical internship (NYCC Catalog, 2000-2002). Students who need more time to complete the curriculum have up to, but no longer than seven calendar years.

Students who successfully complete the NYCC academic requirements do so in two
phases. The first phase focuses on the science of chiropractic knowledge and the second phase emphasizes clinical or hands-on knowledge where students have the opportunity to transfer academic knowledge into acquired technical skills and to develop competence to practice. To complete both phases of training, NYCC students are exposed to over 92 major courses and electives and are expected to acquire at least a total of 4965 contact or instructional hours of study. Class attendance is required of all students, and fulfillment of all appropriate clinical requirements is expected (NYCC Catalog, 2000-2002). For example, the first phase or pre-clinical phase of training is completed after 3585 contact hours of chiropractic science study and the second phase or clinical phase is completed after an additional 1380 one-to-one contact hours with clinical faculty during clinical training.

Throughout the course of study, tests and examinations measure academic/scientific knowledge and clinical/hands-on skills needed by every NYCC Doctor of Chiropractic graduate. In addition, the broader outcomes of learning experience, including the ability to retain, integrate and apply knowledge and skills are ongoing and are measured over the entire program at specific intervals before the Doctor of Chiropractic degree is awarded (NYCC Catalog, 2002). Structure, rigor, and priority on academics as well as professional development for all students have enabled NYCC to maintain high student retention rates. For example, in 1998-1999 academic years, NYCC’s annual retention rate was 97% (NYCC Catalog, 2000-2002).

In 1999, NYCC instituted a "structured mentoring program" at the clinical phase of its curriculum to facilitate transfer of academic knowledge to practice for its students. (See Appendix I, a memo from Dr. Bob Ruddy of NYCC to the investigator describing the NYCC’s mentoring program, June 21, 2001). The NYCC mentoring program has two phases. The first
phase of mentoring starts at the seventh trimester when health care students are getting ready for clinical training. However, the "mentoring" received at this stage is not officially with health care faculty but with eighth trimester health care students who are assigned to help seventh trimester students become comfortable with their new clinical surroundings. When seventh trimesters students make successful transition into the eighth trimester of training or the "clinical" phase, they encounter "formal mentoring". At this phase of the clinical training, NYCC students are assigned, each, to a mentor to facilitate the remainder of their practical training.

The faculty/mentor at NYCC is a clinically experienced faculty member who has a practice from which he/she is expected to have gained a specific amount of clinical experience to share with his/her intern(s) during the mentoring process. In addition, the school also expects the clinician/practitioner to possess good personal and interpersonal skills (Memo, June 21, 2001). Student assignment to a mentor is for the entire clinical phase (3 trimesters) of training. In addition, students are expected to do clinical rounds at the clinics during this teaming phase. All faculty members at the clinics participate as mentors, and all clinical students are assigned a mentor to help facilitate their learning. At the NYCC, pairing of students and faculty is done randomly by matching last names alphabetically.

In line with mentoring literature, mentors at NYCC are expected to participate in ongoing professional development to maintain their faculty status and mentor role. On an ongoing basis, feedback and review sessions are held between students and faculty. For example, feedback was expected informally everyday and formally every two weeks. To ensure some degree of success for this mentoring program, the NYCC built into its program a time commitment for students and faculty by giving clinical students a patient load that
required continual help and feedback from their mentor. The commitment by a mentor was to help and assist the intern in developing clinical skills (functional skills) as well as learn how to interact with different types of patients (psychosocial skills) (see Memo, June 21, 2001).

It is in this type of training environment, where one-to-one interaction was encouraged between students and faculty, that I collected data in the academic year 2002-03 and sought answers to the questions raised in the study. The history of NYCC, its innovation in training, and its willingness to be proactive, made the NYCC a unique setting for this research.

I sought and received the cooperation of the Office of Chiropractic Education at the New York Chiropractic College in identifying health care faculty members and students who were willing to participate in the study. Accordingly, the sample obtained for the study was a convenient sample of volunteers. First-trimester health care students were not included in the study because I assumed that for them mentoring relationships, if any, were only in the formative stages.

A form was enclosed with the survey that allowed the faculty or student to express their interest in taking part in a follow-up, in-depth personal interview. Health care faculty or students who indicated interest in a follow-up personal interview were asked to initial their forms as well as their survey for matching, and to indicate how best they could be reached. Of the 550 surveys addressed to health care students, a total of 153 or twenty-eight percent (88 male and 65 female) of students returned their surveys and 96 out of 150 health care faculty members or 64 percent (43 male, 51 female and 2 unidentified genders) responded to the survey (see Appendix J for a complete breakdown of faculty participants by gender, age, ethnicity, terminal degree and attendance to a Health Care Training School. Appendix K is a complete breakdown of student participants by gender, age, ethnicity, and trimester).
Data Collection Methods

For this study I used a variety of ways to collect quantitative and qualitative data that would support both the need for more holistic and detailed information about mentoring relationships in a health care training setting. I describe each of these in detail in the ensuing sections.

Quantitative Data

I developed survey instruments to gather statistics with regard to evidence of mentoring, as well as the perceptions of the faculty and students engaged in mentoring relationships. The development of the survey instruments resulted from the questions generated and presented as research questions for this study. The survey items were also designed with reference to data generated from previous research used in the study of mentoring and mentoring relationships (Phillips, 1977).

I pre-tested an initial questionnaire, consisting of 58 items and associated with two categories, with 15 health care students and 10 health care faculty members at the New York Chiropractic College, Seneca Falls, New York. I constructed the Health Care Student Survey (HCSS) to address the health care student’s training need for personal and professional development. I developed the Health Care Faculty Survey (HCFS) to address the health care faculty’s motives and competencies with regard to being a mentor (see Appendices A & B). I divided each survey into two sections: biographical background, and mentoring experience. Both the Student and Faculty surveys contained 58 items. The administration of the pre-testing enabled me to identify ambiguous questions or other problems in the survey instrument that I
then adjusted to create a final draft of the survey instruments.

Five-hundred and fifty (550) surveys were prepared and addressed to second, third, fourth, fifth, sixth, seventh, eighth, ninth, and tenth trimester health care students and distributed via their on campus mailbox addresses. In addition, I prepared one hundred and fifty (150) surveys addressed to members of the health care faculty via their on campus office addresses. A cover letter describing the nature of the study, its relevance to mentoring in medical and health care professions education and instruction (see Appendix G: Health Care Student Cover Letter & Appendix H: Health Care Faculty Cover Letter) accompanied each survey. I included a form with the survey and instructed subjects to return the form with the survey if they either accepted to participate in the follow-up personal interview for the study and/or wanted to receive a summary of the study results. Volunteers were informed that I would tape in-depth personal interviews and that interviews would last approximately 45 minutes. They were also informed that the initial portion of each interview would use the “informal conversational approach” to ask each subject to offer his/her views of the health care training and professional career development process. Answers to these general questions then led to an exploration of the kinds of relationships students and faculties have had with mentoring at the NYCC.

Health care students and faculty who indicated interest in a follow-up personal interview were asked to initial their forms as well as their surveys for matching and to indicate how best they could be reached. Subjects were also asked to return their surveys within two weeks of receipt in the reply envelope included in their package to the Office for Chiropractic Education. The confidentiality of all subjects was assured, and subjects were told that they could withdraw from the study at any time. Based on the level of enthusiasm expressed during
my initial information gathering meetings with students and faculty of NYCC, to ascertain interest about the study, I anticipated that 413 health care students and 113 health care faculty members would respond to the surveys, and I set my expected rate of return at 75% with a low attrition rate of less than or equal to 30%. Of the total number of respondents I expected from health care students and faculty, only 153 (28%) health care students and 94 (64%) of health care faculty returned their surveys as instructed. I attributed this lower return rate to the overlap in time between the examination period which I worked hard to avoid but could not control at the time the surveys were administered. I used purposeful sampling (i.e., subjects with best information) to involve four (2.6%) health care students, and five (5.3%) health care faculty members in follow-up, tape-recorded personal interviews.

**Qualitative Data**

The criteria for selecting four health care students and five faculty members for tape-recorded personal interviews were: "best" survey information (i.e., completed survey); initials on survey; initials on forms; and an indication on the forms of how best to reach subjects to arrange for a follow-up personal interview. By adhering to the above selection criteria, I sent postcards to notify those health care faculty and students who expressed interest in doing follow-up personal interviews but were not chosen.

The Office for Chiropractic Education at the NYCC allowed me to use a small office in the Chiropractic Health Center, Seneca Falls, New York, for convenience to the subjects in the study. Taped personal interviews lasted about 45 minutes each. The questions I raised at these
interview sessions were exploratory in nature (see Appendices E & F for Health Care Student and Health Care Faculty Interview Guides). For instance, the initial portion of each interview used the "informal conversation approach" (Yin, 1984) by asking each subject to offer his/her view of the health care training and professional career development process. For example, the health care students’ initial conversation focused on tracing the subject's history and interest in health care training as well as the roles that others may have played in the development of the student's health care career history. For the faculty, the initial conversation focused on the difference they believed they have made, as mentors, in the training experience of their students at the NYCC. Answers to this general question then led me to explore the kinds of relationships students as well as faculties have had with mentoring and mentoring relationships at the NYCC. Accordingly, the responses I received to these exploratory questions further suggested the follow-up questions which led to other questions generated in the interview guide for the study. For example, the follow-up question to the general exploratory question for health care students asked what or who inspired the student to have interest in the health care field. For the faculty, the exploratory question was followed by a question of whether the faculty member felt it was important to support health care student’s career and psychosocial development needs.
Organization of the Case Database

To ensure the reliability and validity of this case study, I assembled and organized a comprehensive case database during the process of collecting and analyzing data, and the information that I used in recording, analyzing, and interpreting the events and processes under study became a part of the database.

The construction of the case database balanced both my need to establish a credible data base to ensure reliability and replicability, and, at the same time, took into account the constraints imposed by my limited resources. At a minimum, the case database for this study included the following:

1. A copy of the case study protocol.
2. Copies of all documents collected during the investigation regardless of the degree to which they were examined.
3. Copies of correspondence with informants regarding the study.
5. Original copies of the tapes of all recorded interviews and their transcriptions.
6. Original and transcribed notes of all recorded interviews.
7. Copies of participants’ returned surveys.

Under ideal circumstances, the database would be maintained both on paper and on electronic media. I did not attempt to undertake such an effort. Where documents and other
records were available in electronic format, however, they have been retained as paper files and in their electronic format.

Case Study Protocol

The following case study protocol provides a detailed framework from which this investigation was conducted. It outlined the development of procedures followed to address appropriate safeguards to assure integrity, validity, and reliability of the research. Specific documentation examined and included in the case study database included the following:

1. Information on academic support programs and services;
2. Information on time line requirements to fulfill pre-requisites (i.e., general course listings for 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, and 10th trimester health care students);
3. Specific information on student and faculty interaction opportunities during academic and social events (from the academic and social events calendar for students);
4. Catalogs, newsletters, and recruitment advertisement;
5. Information on the NYCC institutional health care training mission, admission, retention statements, and graduation rates;
6. Health Care Student Survey Instrument (Appendix A: HCSS), and

Bogdan and Biklen (1998) have noted that research design plans are mechanisms
through which the actions of researchers unfold. As this mixed case study design unfolded, my plans evolved with the new knowledge gained about the place, people, and specific resources related to the study. I went into this study with an open mind to study mentoring and mentoring relationship ideas. In line with Miles and Huberman’s (1994) suggestion, the plans and protocol section of this study was a more structured design approach which proceeded with some select questions, choice of participants to interview, as well as location and time before carrying out the actual field study. This is in line with the argument presented by Van Maanen (1988), Goodenough (1957; 1964, p. 36), Hutchins (1995), and Duranti (1997), that, at a minimum, ethnographers need to have some understanding of the cultural group's beliefs, categories, concepts, language, practices, rules, and so forth. Van Maanen (1988) refers to these things as the "stuff" necessary for gathering the data. I relied on my training and background in Medical and Health Professions Education as well as my familiarity with the "stuff" of health education, and how this "stuff" relates to health care training services in my interaction with the culture of health care training that I studied.

Data Analysis

I combined both quantitative and qualitative methods within a single mixed case study research design. I analyzed quantitative data using a simple frequency count for the purpose of answering the research questions. On the one hand, I derived the elements of analysis for the quantitative aspect of the study from the survey instruments. Survey information provided standardized measures and allowed the varying perspectives and experiences of respondents to fit into a limited number of predetermined response categories to which I assigned numbers for
descriptive purposes. The advantage of the quantitative approach was that I was able to
determine the reactions of many respondents to a limited set of questions, thereby facilitating
comparison and statistical aggregation of data to present findings succinctly as well as
parsimoniously. I used the Microsoft® Office Home and Student® Excel 2007 software to
aggregate these data.

On the other hand, the interpretation of the interview data for the study constituted the
qualitative aspect of this study. Qualitative methods facilitate study of issues in-depth (Tesch,
1990). In this regard, the qualitative method produced a wealth of detailed information about a
small number of individuals who volunteered for in-depth interviews. During these in-depth
interview sessions, I looked for affect words, phrases, terms and whole sentences that captured
how the respondents were assessing their experiences with mentoring at NYCC. On the other
hand, I treated non-affect words, phrases, terms and sentences as the glue, necessary, to weave or
tie individual experience together into a cohesive story.

Statistical or quantitative data provided a succinct and parsimonious summary of major
patterns in this study, while qualitative or select case studies provided depth, detail, and
individual meaning. By combining both qualitative and quantitative methods, this study was
designed to shed some light on the different aspects of the questions raised in the study, and the
two strategies together, presented a picture of the “how” and “why” of mentoring and mentoring
relationships in a health care training setting.

Survey questionnaires are often used as self-report measures. On the positive side,
questionnaires are simple to aggregate, easy to administer to a geographically broad
population, cost effective in time and money, and provide direct data rather than an observer's
interpretation of behavior (Mangione, 1995). However, there are multiple liabilities associated
with surveys. These liabilities include the assumption that a respondent could and would correctly report or describe his/her experiences and values. In addition, there is also the likelihood that respondents might be inclined to give socially desirable responses (Williamson, Karp, Dalphin & Gray, 1982). To counteract these liabilities, I used in-depth interviews that offered the opportunity to probe and explore avenues suggested by the pattern of each interview. This method offered the potential for greater accuracy on some sensitive matters that survey questionnaires may not have been able to capture.

Interviewing required tremendous amounts of time to meet with each respondent and to transcribe the information. This limitation further reduced the number of possible participants; this made a generalization to a larger population difficult. Further, the results were subjected to my interpretation and at the same time the structure of the interviews varied from subject to subject. Despite the protocol framework, this variation made comparisons difficult. The advantages of cost effective research, timeliness of data gathering and descriptive information comes with an equal number of limitations and the validity of the data may be questioned.

Data analyses for this study involved a detailed reading of the survey instruments and interview transcripts. In doing so, patterns and themes that emerged were identified, and coded. The term "pattern" usually refers to descriptive findings while a "theme" takes on a more categorical or topical form (Lieblich, et al., 1998). Together, patterns and themes captured the core meanings or experiences central to understanding the shared dimensions of mentoring and mentoring relationships at the NYCC setting. Lieblich et al. (1998) have presented a holistic-content as well as a categorical-content perspective as ways to explicate themes and patterns for meaning. Lieblich, et al. (1998, pp. 62-63), presented four step processes to formulate a holistic-content picture to understand and extract meaning from interview data. In this regard, I
formulated my interview data for meaning by:

1. Reading the interview materials many times to identify patterns. At the same time, I paid special attention to aspects of the interviews which had significance to the entire story and its context;

2. Putting the initial and global impression of the case into writing, noting exceptions to the general impressions as well as unusual features of the story such as contradictions or unfinished description;

3. Deciding on special foci of content or themes that would guide the story as it evolves from beginning to end. Frequently, a special focus was distinguished by the space devoted to the theme in the text, its repetitive nature, and the number of details the tellers provided about it;

4. Keeping track of the results in several ways: following each theme throughout the story and noting conclusions; being aware of where a theme appears for the first and last times, the transition between themes and context for each one, and their relative salience in the text. Again, I paid special attention to episodes of the teller that seemed to contradict the theme in terms of content, mood, or evaluation.

For this study, interview data were processed analytically by breaking the text into relatively small units of content and then submitting the contents to descriptive or content analysis. Lieblich et al. (1998) presented these four steps to organize interview contents for analyses:

1. Selection of the subtext: On the basis of a research question or predictions, all the relevant sections of a text are marked and assembled to form a new file or subtext,
which may be seen as the content universe of the area studied;

2. Definition of the content categories: To read the subtext as openly as possible and to define the major content categories that emerged from the reading. This procedure involves careful reading, suggesting categories, sorting the subtext into categories, generating ideas for additional categories or refinement of the existing ones;

3. Sorting the materials into categories using the expressed feelings, emotions and thoughts about mentoring experiences to separate descriptive categories. While the utterances may all be from a single story, categories may also include utterances by several individuals; and

4. Drawing conclusions from the results. Contents collected in each category were used descriptively to formulate a picture of the content universe for each subject and then used to test for predictions made for the study (pp. 112-114).

In drawing conclusion from research results, consideration has to be given to negative cases. Negative cases in a study are closely related to the search for and test for alternative constructs (Patton, 2002). For example, where patterns and trends are identified in a study, the understanding of those patterns and trends is further increased when cases that do not fit within the general patterns of the study are also considered. To this end, negative cases provide a means for refining as well as fine tuning hypotheses and conclusions (Denzin, 1989). In other words, negative cases may be the exceptions that prove the rule. Also, negative cases may broaden the "rule", change the "rule", or cast doubt on the "rule" altogether (Denzin, 1989). For this study, negative cases are defined as health care faculty or health care students who are not
interested in mentoring, or being mentored, respectively. In this study, negative cases are reported separately from the corpus of survey data.

Validity and Reliability

As noted by Campbell and Stanley (1964) and Kidder (1981), the case study must, as all research designs, confront the issue of how to ensure the validity and reliability of the study. "Validity" (i.e. whether answers given correspond to what they were intended to measure) and "reliability" (i.e. whether questions provide consistent measures in comparable situations) as applied in the context of the case study deal with validity and reliability of interpretation (Fowler, 1993).

Merriam (1988) has argued in favor of terms such as truth value for internal validity, transferability for external validity, and consistency for reliability. This is, because qualitative research paradigms are based on a different set of assumptions than quantitative research paradigms. For example, some quantitative research methods are based on the assumption that the researcher can, within prescribed limits, control the context of the phenomena under study (e.g., by doing research in a laboratory setting). In this mixed single case study, I had no control over the context of the phenomenon that was studied aside from selecting the site.

Reliability is a measure of the degree to which the operations of a study can be repeated with the same results (see Merriam, 1988). To this end, I have defined the operations of the study by recording the procedures used in locating and collecting data and these are included in the records of the study. In addition, data collected and the means I used to analyze them are
also a part of the record. Guba and Lincoln (1981) have also suggested that attention focused too heavily on the reliability of a study may be misplaced. The fact is that this study can be replicated with similar or quite different results to accurately reflect the reality of the phenomena undertaken in the study. Therefore, my attention was more focused on establishing the validity of the study. My rationale was that if the validity of the study was established, then, the reliability of the study would follow (Guba & Lincoln, 1981).

I employed a number of strategies in the conduct of this mixed single case study to ensure validity and reliability. These tactics are commonly employed in the use of the case study methodology and have been described in detail by Yin (1984), Merriam (1988), and others. For example, coding is done to ensure reliability so that the data would speak in a global (holistic) or local (categorical) sense (Lieblich, et al., 1998). For this study, I coded for reliability by identifying thematic units and sorted them out from the total number of interview texts. Therefore, the strategies for insuring validity and reliability of this study included the following:

1. Triangulation— I used multiple sources of evidence and multiple techniques to confirm or disconfirm emerging findings, which included the establishment of a chain of evidence, pattern matching, and explanation building (Denzin, 1978a; Campbell, quoted in Tashakkori & Teddlie, 1998, p. 22);

2. Participatory modes of research— I involved subjects in shaping the data collection process (Yin, 1984; Patton, 2002);

3. Key informant review— a "key informant" was involved in the review of drafts of the case study (Yin, 1984; Patton, 2002);
4. Peer review— the use of my dissertation committee members to critique and review the progress of the study on a continuous basis (Yin, 1984; Patton, 2002); and

5. Case study protocol and database--- an outline of a clearly defined plan for the conduct of the study including the articulation of my assumptions and theoretical orientation, as well as a comprehensive and clearly referenced record of the data collected, with its review and interpretation (Yin, 1984; Merriam, 1988).

The use of triangulation ensured the validity of this case study because I got the same story from different perspectives. The use of multiple data sources ensured that the procedures of my study provided a comprehensive account of the factors and events. I explored to determine whether or not mentoring and mentoring relationships were being established. The participation of a "key informant" in review of the drafts, further, helped to ensure that the investigation was sufficiently broad and comprehensive.

I matched recurrent patterns (i.e., mentoring accomplished through a series of "minor" mentor relations) across subjects, built and revised explanations of events, established a chain of evidence which led from the initial questions, through data collection, to the building of my explanations. My criteria for matching were the trimesters in training, and the availability of formal "mentoring" services at particular training levels.

In addition, the use of a "key informant" to review the draft of the case study also helped in the control of my biases, and to ensure that the mixed single case study was an accurate account reflecting the events and processes which occurred during
health care training. Dr. VanBrusen’s (pseudonym) knowledge of the structure of the academic and social events of chiropractic training at the NYCC was useful in guiding the study. Peer review, provided by members of the study committee, served this purpose as well. The use of the case study paradigm and development of the case study database, were perhaps the single-most important tools in establishing the validity and reliability of the study.

**Portraying the Research Findings**

Chapter Four presents a chain of evidence from a detailed reading of the survey instruments and interview transcripts to present analysis and results of the study findings. The data chosen for analysis and to present findings, therefore, was driven by my need to provide a chain of evidence to link the data collected and the questions raised in the study. In Chapter Four, I present:

1. Results and analysis of faculty and student demographics from the survey instruments;
2. Results and analysis of personal in-depth interviews of faculty and students; and
3. A portrait of the evidence revealed in relations to the questions raised in the study.

**Conclusion**

This study sought to determine if there were effective mentoring and mentoring relationships being established at a targeted health care educational training institution and whether or not, the mentoring conditions that were established were strong enough to positively
impact the quality of the training that was taking place. The importance of this study lies in the fact that training in the health care field is too often criticized for not being optimal or effective, and, as a result, strategies must be devised to improve the quality of training (Rolfe, & Sanson-Fisher, 2002). To this end, chiropractics training took the lead to innovate and solve various problems associated with health care training as it relates to bridging the theory-practice gap, and is looking to mentoring, as a tool, to accomplish this training task.

On the basis of the findings of the surveys, and in keeping with the findings of the literature as well, the study also discerned whether or not one type of mentoring or another is favored by the teachers/staff or students involved in the mentoring at this training site. These findings will contribute to the literature, which continues to search for a model of best practices for mentoring in the health care field.
Chapter Four

Results

This chapter reports the findings of my investigation of the factors of a health care training organization that sought to foster interaction and enculturation between health care faculty and trainees into the professional community through mentoring relationships. According to the literature, complex human interactions are involved in the establishment of mentoring relationships, and the events leading to these relationships occur in a dynamic and fluid learning environment (Yin, 1984). Accordingly, NYCC instituted a “structured mentoring program” at the clinical phase of its curriculum to facilitate students’ transfer of academic knowledge to practice. The NYCC mentoring program had two phases. The first phase of mentoring started at the seventh trimester when health care students were ready for clinical training. However, the “mentoring” received at this stage was not officially with health care faculty but with eighth trimester health care students who were assigned to help seventh trimester students become comfortable with their new clinical surroundings. When seventh trimester students made a successful transition into the eighth trimester or the “clinical” phase of training they encountered “formal mentoring” with a faculty member. At this phase of the clinical training, NYCC students were assigned, each, to a mentor to facilitate the remainder of their practical training. It is in this type of training environment, where one-on-one interaction was encouraged between students and faculty that I collected data for this study.

The data reported in this section are presented in relation to my research questions. Therefore, I do not attempt to treat the entire body of data collected for this study beyond answering the questions raised. To this extent, the questions posed in this study were as follows:
1. Is mentoring occurring between health care faculty and students?

2. What perceptions do health care students and faculty hold about the effects and benefits of mentoring and mentoring relationships during training?

3. Do the perceptions of health care faculty and health care students on cross-gender and cross-ethnic mentoring influence the perceived benefits of mentoring and mentoring relationships at this health care training setting?

My investigation revealed that:

1. Mentoring, in fact, occurred during health care training at NYCC.

2. Faculty and students, both, reported that they perceived benefits of entering into mentoring relationships in a health care training setting.

3. Faculty and students both reported that cross-ethnic and cross-gender issues did not affect the perceived benefits of mentoring received by students or given by faculty.

I begin with a summary of the demographic data describing the profiles of the NYCC faculty members and students who participated in the study. Included in the demographics are biographical data for students and faculty members. Specific demographic items were grouped by category. Simple frequency and percentages were calculated and then rank-ordered (see Appendix L & M). For selected demographic items, the means of all identifying factors were calculated for each possible response. Next, I present a summary of responses rating the factors associated with participants’ experiences with mentoring and mentoring relationships. Finally, I present a summary and analyses of the open-ended conversations gathered from in-depth personal interviews with select health care students and faculty, addressing their mentoring and mentoring experience along the curriculum training path. For students, these open-ended questions dealt with their professional and psychosocial development needs, and for the faculty
members, these questions dealt with their motives and competencies in regards to being mentors.

Demographic Information

Responses to the survey provided quantitative data to describe the New York Chiropractic College student body and faculty. For the faculty members the demographic information presented in Table 1 includes gender, age, ethnicity, and terminal degree. For students, the demographic information presented in Table 3 included gender, age, ethnicity, and trimester in training.

Faculty Demographics

Table 1:

Frequency Distribution of Faculty Demographic Characteristics at NYCC

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Distributions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender N=96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td>43</td>
<td>44.8</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>51</td>
<td>53.1</td>
</tr>
<tr>
<td>No Response</td>
<td></td>
<td>2</td>
<td>2.1</td>
</tr>
<tr>
<td>Age N=96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-25yrs</td>
<td></td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>25-30yrs</td>
<td></td>
<td>6</td>
<td>6.3</td>
</tr>
<tr>
<td>30-35yrs</td>
<td></td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>35-40yrs</td>
<td></td>
<td>21</td>
<td>21.9</td>
</tr>
<tr>
<td>40-45yrs</td>
<td></td>
<td>21</td>
<td>21.9</td>
</tr>
<tr>
<td>45-50yrs</td>
<td></td>
<td>21</td>
<td>21.9</td>
</tr>
</tbody>
</table>
Table 1:

*Frequency Distribution of Faculty Demographic Characteristics at NYCC (continued)*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Over 50yrs</td>
<td>17</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
</tr>
<tr>
<td><strong>Ethnicity N=96</strong></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>0</td>
</tr>
<tr>
<td>European American</td>
<td>61</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>0</td>
</tr>
<tr>
<td>Mainland Puerto Rico</td>
<td>0</td>
</tr>
<tr>
<td>Mexican American</td>
<td>1</td>
</tr>
<tr>
<td>Native American</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>24</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
</tr>
<tr>
<td><strong>Terminal Degree N=96</strong></td>
<td></td>
</tr>
<tr>
<td>D. C</td>
<td>40</td>
</tr>
<tr>
<td>M. D</td>
<td>0</td>
</tr>
<tr>
<td>Ph. D</td>
<td>4</td>
</tr>
<tr>
<td>D.C/Ph. D</td>
<td>1</td>
</tr>
<tr>
<td>MD/Ph. D</td>
<td>1</td>
</tr>
<tr>
<td>Sc. D</td>
<td>2</td>
</tr>
<tr>
<td>Ed. D</td>
<td>1</td>
</tr>
<tr>
<td>J. D</td>
<td>1</td>
</tr>
<tr>
<td>M. Sc</td>
<td>5</td>
</tr>
<tr>
<td>M. Ed</td>
<td>4</td>
</tr>
<tr>
<td>M. A</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
</tr>
<tr>
<td>No Response</td>
<td>11</td>
</tr>
</tbody>
</table>

A majority of the individuals (N=96) who identified themselves ethnically in Table 1 were “European American” (63.5 percent), “Other” (25 percent) represented the next significant response, followed by “Native American” (7.3 percent), and the “No Response” (2.1 percent) respectively. It may be possible that people who selected “Other” and the “No Response” categories may be sensitive in identifying with any of the ethnicities listed on the survey. For
example, 14 of the 24 individuals who chose “Other” identified as “Caucasian/white”, six as “Americans”, one as “Asian Canadian”, one “Asian American”, one “Biracial”, and one “North American”.

It is also interesting to note that 26 percent of the individuals (N=96) who reported having Terminal Degrees in Table 1 selected the “Other” category, and 11.4 percent selected the “No Response” category. It is possible that there may be other qualifying academic criteria for employees at the NYCC that were not listed on the survey. Of the 25 individuals who responded to the “Other” category, 14 reported “Bachelor” degree, seven “Associate” degree, two “High School” diplomas, one “Radiology” certificate, and one “None”.

Table 2 presents professional profile for faculty—whether or not a faculty member attended a health care training school; health care practice profile; and the importance of having same race or same gender protégés. These items were isolated to provide insight into the profiles of faculty, and to ascertain whether these items influenced the establishment of mentoring and mentoring relationships at NYCC.

Table 2:

*Professional Profile of NYCC Faculty*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Distributions___________</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Present Rank N=96</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructor</td>
<td></td>
<td>9</td>
<td>9.4</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td></td>
<td>18</td>
<td>18.8</td>
</tr>
<tr>
<td>Associate Professor</td>
<td></td>
<td>13</td>
<td>13.5</td>
</tr>
<tr>
<td>Professor</td>
<td></td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Adjunct</td>
<td></td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Administrator</td>
<td></td>
<td>13</td>
<td>13.5</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>33</td>
<td>34.4</td>
</tr>
</tbody>
</table>
Table 2:

*Professional Profile of NYCC Faculty (continued)*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Distributions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Attended a Health Care Training School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N= 96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47</td>
<td>49.0</td>
</tr>
<tr>
<td>No</td>
<td>49</td>
<td>51.0</td>
</tr>
<tr>
<td>Practice Profile N=30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Time</td>
<td>5</td>
<td>17.0</td>
</tr>
<tr>
<td>Part Time</td>
<td>25</td>
<td>83.0</td>
</tr>
<tr>
<td>Important if Protégé is same Ethnicity/ Race N=39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>100</td>
</tr>
<tr>
<td>Important if Protégé is same Gender N=39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

Of the individuals who responded to the “Present Rank” item on the survey, 33 or 34.4 percent ranked themselves as “Others”. A further breakdown of this category contained 24 staff members including librarians, three clinicians, three counselors, one chaplain, one director of admissions, and one instructional technologist. This may explain why only 49 or 51 percent of respondents reported “No” they did not “Attend a health care training school”, and may further explain why only 30 individuals responded to the “Practice Profile” item, in which 5 or 17 percent practiced full-time and 25 or 83 percent practiced part-time. Thirty-nine faculty members who responded to the items “Important if protégé is same ethnicity/race” and “Important if protégé is same gender” respectively responded “No”. The overwhelming response to these items presents a possibility that cross-ethnic and cross-gender matching may not be important in
a health care training setting. It may also be possible that in these settings where under-representation of minority students and faculty is a challenge, this issue lingers. Further, data also indicated that only 30 or 31.2 percent of faculty who responded to the item “Do you currently have a protégé” reported having current protégés. It is possible that the response to these items might be different from the ones reported if the population who responded to this survey contained a more diverse mix of individuals from different ethnic backgrounds.

**Student Demographics**

Table 3 presents the demographic characteristics of students who participated in the study. Items included are: gender, age, ethnicity, and trimester in training. As with the faculty data, these items for students were isolated to determine whether they influence the establishment of mentoring and mentoring relationships at NYCC.

Table 3:

*Frequency Distribution of Student Demographic Characteristics at NYCC*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender N=153</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>67</td>
<td>43.8</td>
</tr>
<tr>
<td>F</td>
<td>86</td>
<td>56.2</td>
</tr>
<tr>
<td>No Response</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Age N=153</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-25yrs</td>
<td>61</td>
<td>39.9</td>
</tr>
<tr>
<td>25-30yrs</td>
<td>64</td>
<td>41.8</td>
</tr>
<tr>
<td>30-35yrs</td>
<td>17</td>
<td>11.1</td>
</tr>
<tr>
<td>35-40yrs</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>40-45yrs</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>45-50yrs</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Over 50yrs</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Table 3:

*Frequency Distribution of Student Demographic Characteristics at NYCC (continued)*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>No Response</td>
<td>0</td>
</tr>
<tr>
<td><strong>Ethnicity N=153</strong></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>3</td>
</tr>
<tr>
<td>European American</td>
<td>87</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>6</td>
</tr>
<tr>
<td>Mainland Puerto Rico</td>
<td>1</td>
</tr>
<tr>
<td>Mexican American</td>
<td>0</td>
</tr>
<tr>
<td>Native American</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
</tr>
<tr>
<td><strong>Trimesters N=153</strong></td>
<td></td>
</tr>
<tr>
<td>1st Trimester</td>
<td>0</td>
</tr>
<tr>
<td>2nd Trimester</td>
<td>6</td>
</tr>
<tr>
<td>3rd Trimester</td>
<td>1</td>
</tr>
<tr>
<td>4th Trimester</td>
<td>5</td>
</tr>
<tr>
<td>5th Trimester</td>
<td>9</td>
</tr>
<tr>
<td>6th Trimester</td>
<td>11</td>
</tr>
<tr>
<td>7th Trimester</td>
<td>1</td>
</tr>
<tr>
<td>8th Trimester</td>
<td>67</td>
</tr>
<tr>
<td>9th Trimester</td>
<td>23</td>
</tr>
<tr>
<td>10th Trimester</td>
<td>30</td>
</tr>
</tbody>
</table>

Of the students who responded to the “Ethnicity” item on the survey, 50 or 32.6 percent responded to the “Other” category. The make-up of this group consisted of: 11 Caucasian/white, six Americans, 12 East Asian/Indian American, 14 Canadian, one Hispanic Canadian, one Haitian Canadian, one Chinese Canadian, one Jewish, one Latina, one Lebanese American, and one student from Trinidad.

In addition, of the 153 students who responded to the survey item on “Ethnicity”, three African Americans responded: one was in the eighth trimester and two were in the tenth
trimester. Eighty seven European Americans responded to this item: four were in the second trimester, two in the fourth, five in the fifth, six in the sixth, one in the seventh, 42 in the eighth, 12 in the ninth, and 15 in the tenth trimester. Six Hispanic Americans responded: one was in the sixth trimester, two in the eighth, one in the ninth, and two in the tenth trimesters. One Mainland Puerto Rican responded and was in the tenth trimester. Of the 50 students who responded to “Other”, two were in the second trimester, three in the fourth, four in the fifth, four in the sixth, 20 in the eighth, nine in the ninth, and eight in the tenth. While the six who responded in the “No Respond” category were: one in the third trimester, two in the eighth, one in the ninth, and two in the tenth.

Further, it would seem that most institutions lose students as they make progress through a program; however the number of responses in Table 3 above seemed to indicate that majority of the students who responded increased as they made progress toward graduation. Perhaps, more students were interested in the survey the closer they got to graduation. This is important and says something about perceptions of mentoring especially since it is not emphasized throughout the program; it is primarily something for those in the final stages of their training. Therefore, the lack of “structured mentoring” in early trimesters of training is a likely weakness of the mentoring program. Table 4 is further breakdown of student gender by trimester.

Table 4:

*Frequency Distribution of Student Gender by Trimester at NYCC*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency (N=153)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>2\text{nd} Trimester</td>
<td>4</td>
</tr>
<tr>
<td>3\text{rd} Trimester</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 4:

*Frequency Distribution of Student Gender by Trimester at NYCC (continued)*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency (N=153)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>4th Trimester</td>
<td>1</td>
</tr>
<tr>
<td>5th Trimester</td>
<td>3</td>
</tr>
<tr>
<td>6th Trimester</td>
<td>6</td>
</tr>
<tr>
<td>7th Trimester</td>
<td>1</td>
</tr>
<tr>
<td>8th Trimester</td>
<td>34</td>
</tr>
<tr>
<td>9th Trimester</td>
<td>18</td>
</tr>
<tr>
<td>10th Trimester</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
</tr>
</tbody>
</table>

Table 5 is the NYCC student demographic summary and included are items isolated to answer the questions raised in this study. These items relate to whether student ever had a mentor, and if it was important for a mentor to be of the same gender or ethnicity/race as the student.

Table 5:

*Frequency Distribution of Students Who Had a Mentor by Gender and Ethnicity*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Ever Had a Mentor? N=153</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>90</td>
</tr>
<tr>
<td>No</td>
<td>63</td>
</tr>
</tbody>
</table>

Have Current Mentor? N=90

|                     |           |            |
| Yes                 | 80        | 89         |
| No                  | 10        | 11         |

Importance of Same Gender Mentor N=90
Table 5:

*Frequency Distribution of Students Who Had a Mentor by Gender and Ethnicity (continued)*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>No</td>
<td>83</td>
<td>92</td>
</tr>
</tbody>
</table>

*Importance of Same Ethnicity/ Race Mentor N=90*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>87</td>
<td>97</td>
</tr>
</tbody>
</table>

The following items were further isolated from Table 4 and 5 to provide insight on the profiles of students, and to ascertain whether these items influenced the establishment of mentoring and mentoring relationships at the NYCC:

*Gender by trimester:* A majority of the students who responded to this item reported having mentoring experience, and they did so in the eighth, ninth, and tenth trimesters of training where formal mentoring was offered. And a total of 86 (56 percent) males and 67 (44 percent) females reported having mentoring experience. Of the 86 males, 34 or 39.5 percent were in their eighth trimester, 18 or 20.9 percent were in the ninth trimester, and 19 or 22.1 percent were in the tenth trimester of training. And of the 67 female respondents, 33 or 49.3 percent were in their eighth trimester, 5 or 7.5 percent were in the ninth trimester, and 11 or 16.4 percent were in the tenth trimester of training. Further, it is interesting to note that in general, lower level trimester students who responded to this item also reported having experience with mentoring in the second trimester (3.26 percent), fourth trimester (3.26 percent), fifth trimester (5.9 percent), sixth trimester (7.2 percent), and seventh trimester (0.65 percent).
Ever had a mentor: Of the 153 students who responded to this item, 90 or 59 percent reported having had some experience with mentoring; while 62 or 41 percent reported “No” experience with mentoring. Moreover, when this study was conducted, 90 students responded to the item “Do you currently have a mentor?” Of this total, 80 or 89 percent reported “Yes”, and 10 or 11 percent reported ‘No’.

Have current mentor: Of the 90 students who responded to this item, 80 or 89 percent reported they currently had a mentor; while 10 or 11 percent reported they did not currently have a mentor. Compared to faculty data, only 30 or 31.2 percent (N=96) of faculty reported having current protégés. Survey data further revealed that faculty mentors had more than one protégé when the study was conducted.

Important if mentor was the same gender: Ninety students responded to this item. Seven or eight percent of students reported that “Yes”, it was important that their mentor was the same gender as they. In contrast, 83 or 92 percent of students who responded reported “No”, it was not important that their mentor was the same gender. Compared to faculty data, 100 percent of the faculty (N=39) who responded reported that it was not important for protégés to be of the same gender.

Important if mentor was the same ethnicity/race: Ninety students responded to this item on the survey. Three or three percent reported that “Yes” it was important that their mentor was the same ethnicity/race as them. In contrast, 87 or 97 percent reported “No” it was not important that their mentor was the same ethnicity/race. Compared to faculty data, 100 percent of the faculty (N=39) who responded, reported that it was not important for protégés to be of the same ethnicity/race as them.
Responses to Question #1: Is mentoring occurring between health care faculty and students?

In addressing the specific questions raised in this study, research question #1 asked: Does mentoring, in fact, occur in this School of Health? Item #11 on the survey questionnaire asked: “Do you currently have a mentor?” According to this data, 81 or 53 percent of students who responded (N=153) to the survey reported that they “currently have a mentor” indicating that they perceived mentoring during training. Of this number, 46 students were in their eighth trimester, 17 were in the ninth trimester, and 23 were in the tenth trimester of training. Further, some mentoring was reported along the second, fourth, fifth, sixth, and seventh trimesters of training. In contrast, 72 or 47 percent of students who responded to this item reported that they currently did not have a mentor. In order to balance out survey item #11 (“Do you currently have a mentor?”), item # 9 on the survey further asked students: “Have you ever had a mentor?” The frequency distribution of students who reported to ever have a mentor is presented in Table 5. Ninety or 59 percent (N=152) of students who responded reported some experience with mentoring, and 62 or 41 percent reported no experience. In essence, items # 9 and #11 on the survey provided insight into whether mentoring was occurring at the NYCC.

In addition, Table 6 presents the same data by trimester of training for students. (See Table 9: Frequency Distribution of faculty by gender who “Were satisfied with the mentoring they provided”). Further, Table 6 shows a progression of emphasis on mentoring as time increased in training, and suggests that deficiencies in early trimesters may seem to be a weakness in the program.
Table 6:

Frequency Distribution of Students Who Perceived Mentoring By Trimester

<table>
<thead>
<tr>
<th>Trimester of Students in Training N=153</th>
<th>Yes Responses</th>
<th>Percent of Total Responses</th>
<th>Percent of Total Responses (N=153)</th>
<th>Yes Responses per Trimester</th>
<th>Percent of Yes Responses per Trimester</th>
<th>No Responses</th>
<th>Percent of No Responses</th>
<th>Percent of No Responses per Trimester</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Trimester</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>8.3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>3rd Trimester</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.4</td>
<td>0.7</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4th Trimester</td>
<td>1</td>
<td>1.2</td>
<td>4</td>
<td>5.6</td>
<td>2.6</td>
<td>20</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>5th Trimester</td>
<td>2</td>
<td>2.4</td>
<td>7</td>
<td>9.7</td>
<td>4.6</td>
<td>22</td>
<td>78</td>
<td>78</td>
</tr>
<tr>
<td>6th Trimester</td>
<td>2</td>
<td>2.4</td>
<td>9</td>
<td>12.5</td>
<td>5.9</td>
<td>18</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>7th Trimester</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.4</td>
<td>0.7</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>8th Trimester</td>
<td>36</td>
<td>44.4</td>
<td>31</td>
<td>43.0</td>
<td>20.3</td>
<td>54</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>9th Trimester</td>
<td>17</td>
<td>21</td>
<td>6</td>
<td>8.3</td>
<td>4</td>
<td>74</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>10th Trimester</td>
<td>23</td>
<td>28.4</td>
<td>15</td>
<td>9.7</td>
<td>4.6</td>
<td>77</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>100</td>
<td>53</td>
<td>100</td>
<td>47</td>
<td>53</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

Responses to Research Question #2: What perceptions do health care students and faculty hold about the benefits of mentoring and mentoring relationships during training?

Research question #2 asked: “If mentoring was occurring, do third and fifth, sixth and eighth and ninth and tenth trimester health care students perceive the benefits of mentoring?” On the survey questionnaire, items #24 (i.e. perceived career development function of mentoring) and item #25 (i.e. perceived psychosocial development function of mentoring) were used to address the perceived “benefits” of mentoring for students. Table 7 presents frequency distribution data for “effects” of mentoring, while Table 8 presents the distribution for “benefits”. It is important to note that of all the students (N=153) who responded to the survey, only 136 responded to item # 24 and only 125 responded to item # 25 on the survey. It may be possible that not all students who responded perceived the need for mentoring for both career
and psychosocial development. It may also be possible that the developmental needs of students changed as they move from lower to higher trimesters and from psychosocial to career.

Table 7:

*Frequency Distribution of Students by Trimester Who Perceived the Impact of Mentoring*

<table>
<thead>
<tr>
<th>Trimester of Students in training</th>
<th>Question #24: Percent of Responses</th>
<th>Question #25: Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=136</td>
<td>N=125</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>6.6</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>8.1</td>
</tr>
<tr>
<td>8</td>
<td>67</td>
<td>49.3</td>
</tr>
<tr>
<td>9</td>
<td>22</td>
<td>16.1</td>
</tr>
<tr>
<td>10</td>
<td>26</td>
<td>19.1</td>
</tr>
<tr>
<td>Total</td>
<td>136</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 8 is a summary of responses of students who perceived the benefits of mentoring by trimester. It is important to note that of all the students (N=153) who responded to the survey, only 73 responded to items # 34 and 35 on the survey. It may be possible that not all students who responded perceived the need for mentoring for both career and psychosocial development. It may also be possible that the developmental needs of students changed as they move from lower to higher trimesters and from psychosocial to career.
Together, items #24, 25, 34 and 35 on the survey instrument presented direct evidence that mentoring, in fact, was occurring at the NYCC; both students and faculty perceived the effects as well as benefits of mentoring. Hopefully, more will be revealed about the nature of these mentoring effects and benefits as I discuss the interview data.

Table 8:

*Frequency Distribution of Students by Trimester Who Perceived the Benefits of Mentoring*

<table>
<thead>
<tr>
<th>Question #34</th>
<th>Question #35</th>
<th>Percent of Yes Responses of students who perceived benefits of mentoring</th>
<th>Percent of No Responses students who did not perceive benefits of mentoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career</td>
<td>Psychosocial Development Functions of why it is important to have a mentor N=73</td>
<td>Trimester Frequency of Students who perceived career development functions of mentoring</td>
<td>Trimester Frequency of Students who perceived psychosocial development functions of mentoring</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>4.1</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>2.7</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>36</td>
<td>49.3</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>16</td>
<td>21.9</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
<td>21.9</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
<td>Total 73</td>
</tr>
</tbody>
</table>

Research Question #3: Do the perceptions of health care faculty and health care students on cross-gender and cross-ethnic mentoring influence the perceived benefits of mentoring and mentoring relationships at this health care training site?
On the survey questionnaire, items #18 asked students: “Is it important to you that your mentor is the same gender as you?” (See Table 5) For the faculty, item #19 asked: “Is it important to you that your protégé is the same gender as you?” (See Table 2) Both faculty and students who responded to these items overwhelmingly responded “No”. A total of 90 students responded to this item; of these, 7 responded “Yes”, it was important and 83 responded “No”, it was not important that their mentor was the same gender. For the faculty, a total of 39 faculty responded to this item. All 39 or 100 percent of the faculty who responded to this item reported “No”, it was not important that their protégé’s were the same gender.

Further, item #20 on the survey asked students: “Is it important to you that your mentor is the same ethnicity/race as you?” (See Table 5) For the faculty, item #21 on the survey asked: “Is it important to you that your protégé is the same ethnicity/race as you?” (See Table 2) Again, both students and faculty who responded to these items overwhelmingly reported “No”, it was not important that the mentor or protégé was of the same ethnicity/race. For the student group, a total of 89 students responded to this item: 86 or 96.6 percent responded “No”, it was not important, while three or 3.4 percent of students responded “Yes” it was important (see Table 5). For the faculty, all 39 or 100 percent respondents to this item responded “No”, it was not important that their protégés were the same ethnicity/race as them (Table 2).

Regarding the importance of a mentor or protégé being of the same gender; both students and faculty who responded to these items overwhelmingly responded “No”, it was not important that the mentor or protégé was of the same gender. For the student group, a total of 90 students responded to this item: 83 or 92.2 percent responded “No”, it was not important while 7 or 7.78 percent of students responded “Yes” it was important (See Table 5). For the faculty, all 39 or 100 percent respondents to this item responded “No”, it was not important that their protégés were
the same ethnicity/race as them (see Table 2). The affirmative responses reported on both cross-

gender and cross-ethnic matches by students and faculty is curious. First, both the student and 
faculty populations from which these data were gleaned are not diverse enough to allow for any 
conclusions. Second, it may be possible that the challenges faced by people of different genders 
and ethnicities, once in the field as well as in college, may be different than those who responded 
to this study. Further study is needed to understand these challenges in the mentoring dynamics.

Negative Cases

The following negative cases were exceptions gleaned from the survey data, and they are 
reported here according to the survey item they represented on the questionnaire. On the survey 
questionnaire, items #18 had asked students: “Is it important to you that your mentor is the same 
gender as you?” (See Table 5) For the faculty, item #19 asked: “Is it important to you that your 
protégé is the same gender as you?” (See Table 2) Both the faculty and students who responded 
to these items overwhelmingly responded “No”. However, of the total of 90 students who 
responded to this item, 7 or 7.8 percent of these responded “Yes”, it was important that their 
mentors were the same gender as they were.

Item #20 on the survey asked students: “Is it important to you that your mentor is the 
same ethnicity/race as you?” (See Table 5) For the faculty, item #21 on the survey had asked: “Is 
it important to you that your protégé is the same ethnicity/race as you?” (See Table 2) Again, 
both the students and faculty who responded to these items overwhelmingly reported “No”, it 
was not important that the mentor or protégé was of the same ethnicity/race. However, of a total 
of 89 students who responded to this item, 3 or 3.4 percent of the students responded “Yes”, it
was important that their mentors were the same ethnicity/race as they were. It turned out that the negative responses were the voices of the three African Americans who identified on Table 3. Moreover, some research on mentoring relationships of late adolescent and college-aged ethnic minorities have suggested that gender and ethnicity/race were important in establishing meaningful mentoring relationships (e.g. Liang, et al., 2006; Cavell, et al., 2002; Jackson, et al., 1996; Sanchez & Colon, 2005; Chen, et al., 2003). This speak to the issue of lack of diversity in the health care faculty make-up with implications for meeting the career and psychosocial development needs of increasingly diverse student population. The question, then, is what role should expectation; attainment, experience, self-direction, and maturity play during professional training- such that these factors would enable chiropractic students to have their psychosocial and career development needs met by any faculty/staff that was willingly supportive irrespective of race/ethnicity or gender.

Item #22 on the faculty survey asked: “Do you feel it is important to have protégés during health care training?” Of the 81 or 86 percent (N=94) of faculty who responded to this item, 51 or 54 percent were female and 30 or 32 percent were male. Six or 20 percent of male and five or 9.8 percent female faculty or a total of 11 faculty members reported “No” it was not important to have protégés during training.

Item #38 on the faculty survey asked: “Would you say you are satisfied with the quality of mentorship that you give to your current or last four protégés?” Table 9 is the frequency distribution of faculty who reported “satisfaction” or “no satisfaction” with the mentoring they offered.
Table 9:

*Health Care Faculty Satisfied with the Mentoring They Offered*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
</tr>
</tbody>
</table>

From Table 9, of the 94 or 100 percent of faculty who responded to this item, 43 or 46 percent were male and 51 or 54 percent were female. Twenty-one or 49 percent of males reported “Yes” they were satisfied, and 22 or 51 percent reported “No” they were not satisfied with the mentorship they provided to their protégés. Of the female faculty who responded, 13 or 25 percent reported “Yes” they were satisfied, and 38 or 75 percent reported “No”, making a total of 60 or 64 percent faculty members who reported “No”, they were not satisfied with the mentorship they provided.

Reporting on the perceived effects of providing mentoring to students, 94 faculty members responded to this item: 43 or 48 percent of male and 51 or 54 percent of female faculty. Of the 43 male respondents, 36 or 84 percent reported “Yes”, they perceived the effects of providing mentoring to students, while 7 or 16 percent reported “No” they did not perceive the effects of mentoring students. Of the 51 female faculty members, 32 or 63 percent reported “Yes”, while 19 or 37 percent reported “No”, they did not perceive the effects of providing mentoring to students.

On the perceived benefits of providing mentoring to students, 94 faculty members responded to this item: 43 or 48 percent of male and 51 or 54 percent of female faculty. Of the
43 male respondents, 36 or 84 percent reported “Yes”, they perceived the benefits of providing mentoring to students, while 7 or 16 percent reported “No”, they did not perceive the benefits of providing mentoring to students. Of the 51 or 54 percent female faculty, 30 or 59 percent reported “Yes”, they perceived the benefits of providing mentoring to students, while 21 or 41 percent reported “No”, they did not perceive the benefits of providing mentoring to students.

General Findings Based on Quantitative Data

The data used in explaining the findings of this study were self-reported by select groups of students and faculty at NYCC. Therefore, the data reflect personal biases. It is also possible that the respondent’s self-perceptions may differ from the perceptions that others may have of these items. Moreover, it is true that we each create our own preferred identities, and we tend to answer such questions in ways that support our preferred identities. Notwithstanding the shortcomings of self-reported data, the survey data revealed that most faculty members who responded were part-time employees and the majority of them were involved in a solo health care practice (see Table 2). About 70 percent (N=96) of them felt that it was important to have protégés during health care training. Most faculty members who responded reported they would like both formal and informal mentoring formats. In addition, most faculty members on the survey wanted to stimulate their students to learn more. A majority of faculty members who responded said the best psychosocial development function to describe them was their wish to motivate students. “I expose my protégé to things he/she needs to know” described how they interpreted their psychosocial mentorship role. “I accept my protégé for who he/she is” typifies their approach to the career development aspect of mentoring (See Appendix M: Summary of
The findings further revealed that most participants (both students and faculty) were satisfied with the quality of mentorship they had experienced. In addition, a majority of the faculty who participated in the study reported that they took personal interest in their protégé’s career: They advised their protégés, coached their protégés on special projects, informed their protégés of up-coming learning opportunities, listened to their protégés personal problems, as well as helped their protégés to coordinate their professional goals. Faculty members who responded to the survey further reported that: they accepted their protégé for who they were, stimulated their protégés interest to learn more, motivated their protégés, and witnessed protégés who gained self-confidence. In addition, some faculty members agreed that they conveyed the norms of the profession of health care to their protégés and that their protégés were like friends. In this regard, faculty members who responded felt they were effective in communicating with their protégés.

Survey data further revealed that most students had a mentor. And in some cases, some students had more than one mentor (between 2 and 4) since coming to NYCC (see Appendix L: Summary of Health Care Student Survey). At the time the study was conducted, most students who responded had a mentor and their current or last four mentors were in the same specialty as they were. Some students felt it was important to have a mentor during health care training and would participate in mentoring if made available at the NYCC. Some students felt it was important to have both formal and informal mentors. Some also felt they wanted to have mentors because they wanted to be stimulated to learn more. In addition, some reported that their mentors were like a peer or friend. In general, students who responded agreed that the best career development function they needed was for mentors to share valuable career development
information with them. Finally, responding students described their mentors as helpful because mentors provided them with opportunities to develop their career and psychosocial development skills.

In general, although not without exception, the study survey revealed that:

1. 98% of students were satisfied with the mentoring they received;
2. 97% of faculty were satisfied with the mentoring they offered;
3. 100% of students would recommend mentoring to other health care students at NYCC;
4. 94% of mentors took personal interest in students’ career development needs;
5. 82% of mentors gave students important assignments;
6. 82% of mentors gave students special coaching on projects;
7. 76% of mentors advised students on upcoming learning opportunities;
8. 91% of mentors listened to students’ personal problems;
9. 94% of mentors helped coordinate their student’s professional development goals;
10. 91% of mentors accepted students for who they were;
11. 88% of mentors were able to stimulate their student’s interest to learn more;
12. 94% of mentors were able to motivate their students;
13. 76% of mentors had gained student’s confidence;
14. 53% of mentors conveyed the norms of the profession of health care to students;
15. 97% of mentors considered students as friends;
16. 97% of mentors spent considerable time with students;
17. 97% of mentors reassured students’ confidence when in doubts;
18. 89% of students felt comfortable with their mentors;
19. 100% of faculty mentors believed age was not important in entering into a mentoring relationship;

20. 100% of faculty mentors and 97% of students believed ethnicity was not important in entering into a mentoring relationship;

21. 100% of faculty mentors and 89% of students believed gender was not important in entering into a mentoring relationship;

22. 100% of faculty believed a terminal degree was not important for mentors to enter into a mentoring relationship;

23. 87% of faculty members felt that having one or more protégé’s during training was important.

Summary of Interviews

Four health care students and five health care faculties were interviewed for this study. The criteria for selecting them were “best” survey information (i.e., completed survey); initials on the survey; initials on the forms; and an indication on the forms of how best to reach them to arrange for a follow-up personal interview. The Office of Chiropractic Education at the NYCC allowed me to use a small office for convenience to the subjects in the study. The interviews were scheduled to last 45 minutes and the questions I raised at these interview sessions were exploratory in nature (see Appendices E & F for Health Care Student and Health Care Faculty Interview Guides). Further, these interviews deepened my knowledge of responses gained from the surveys.
Summary of In-depth Student Interviews

The interviews revealed that selected students of NYCC who participated in this study felt that earlier interactions with doctors or professionals in the field of health care stimulated their interest in the health care profession. As one of the student said: “I had this wonderful interaction with my doctors and that was probably along with my already, you know, I already had a fondness for science, but that interaction… I remember that very vividly and I think that’s what got me started thinking about the health care field.” (HCS#1)

According to Darling, (1989) and Phillips (1977), in order for mentoring to occur, bonding has to take place. Accordingly, some students who participated in the interviews felt a mentor was somebody older and wiser for whom they have positive feelings. Some students acknowledged that the chiropractic curriculum was difficult and expressed the feelings that they could not rely on their abilities alone and therefore, needed someone who would help them: “To me a mentor is someone that I aspire to be like, not so much that I want to emulate what they do, but that I have so much respect for what they do, and what they do is so logical to me that you know, it behooves me to make that part of them into who I am” (said HCS#2). This indicates also that a mentor plays a role in professional identity formation.

Student interviewees considered faculty members with whom they had bonded and who assisted them in one way or another as mentors. Johnson (2000), distinguished between “minor” or “major” mentor. One student reported the impact of a “minor” mentor this way: “It was different. When Vijay (a pseudonym for a faculty member) left and he saw me at his going away party he … I had a class and had to go, I appeared late to his going away party, and he didn’t know I was going to show up, he thought I wasn’t going to show up, and he saw me come down the stairs, and he pushed away from the crowd he was in, and he came up and, you know, he’s
like, “Pete, you came,” and oh yeah, it touched me” (HCS#1), the student said. In contrast to faculty members who gave instruction only, students felt that mentors were individuals whom they had allowed into their life to teach them something new and to guide and participate in their growth. In this context, anyone in the position to influence students along the curriculum path and to whom the student would open up could have some kind of influence on students. This influence may be positive or negative and the literature cautioned on the danger of leaving this kind of a vacuum in faculty/student relationship efforts (Carmin, 1988; Darling, 1989; Kram, 1988; Ragins; et all, 2000; Dancer, 2003). In addition, some student interviewees felt that those individuals with the ability to influence and guide their growth crossed racial, ethnic and gender boundaries. According to the literature, the mentoring process is dynamically human; it is human because it touches people emotionally (Kram, 1988; Dodgson, 1986; & Johnson, 2000). One student said: “It has to be human, yeah, because it touches both people at the level of emotion. I did not know that there were many people that would open themselves to the place that allowed them to be fed by the student… because when that occurred, there was a relationship and that’s what I call mentoring” (HCS#1). According to the literature, positive and healthy bonding during mentoring is a source of job satisfaction and a benefit for the organization (Darling, 1989; Dodgson, 1986; Kram, 1988; & Dancer, 2003). From this observation, a message to faculty and institutions of health care training would be what faculty does and how they do it matters; a genuine caring attitude and willingness to engage students could leave a lasting impression with consequences on how the student might translate practitioner/client relationship when in practice.

Further, some student interviewees felt that sometimes they needed somebody with whom they could talk and ask for help in certain areas of professional and psychosocial development. However, some students felt that it was difficult to determine who would be
appropriate to approach for assistance. In this instance, the power of a mentor was important. Some students reported that they felt the power of a mentor when they did not have to wander around looking for answers and wasting energy (Dancer, 2003). Recognizing that relationship is a two way process, the quality of taking the initiative to ask for advice also enabled students to gain confidence, to feel comfortable seeking support and to develop their skills as needed. One student put it this way: “To me a mentor is somebody in the field who takes a personal interest in your work within that field, and as a person. There have been many doctors here who have assisted me; that really took a personal interest in my educational experience or my growth in this profession.” (HCS#3)

In general, some students who participated in the interviews felt that even certain heartfelt, casual conversations with faculty members whom they may not consider as mentors also impacted their ability to connect with the more complex picture of what their training was about. Some students in these interviews felt that empathy and understanding on the part of the faculty was important and was something they needed. Some students further felt it was normal to accept that one does not know it all and that it is all right to ask. As difficult as this may be, often students do not admit that they have a need. According to one student, [A] “major mentor would be someone who would fit into your (researcher’s) definition, which is somebody who, on their own, took you on and guide [sic] you … then there is the minor mentor, one who would be only interested in your career, and they do everything out of their way and within their means to help you develop your confidence as a future practitioner” (HCS#4). Either in the capacity of a minor or major mentor, students felt that faculty members they referred to as mentors generally met their professional and psychosocial development needs in their role as mentors.
Summary of In-depth Faculty Mentor Interviews

Faculty mentors interviewed for this study felt that overall they had made a difference in the health care training of their students. As one faculty mentor puts it:

I treat it [mentoring] differently. This is more personal and is more away from the idea of “school”. In one case, one is more school oriented, but I think the mentorship probably has to do with more [of] what I do downstairs and I have certain…protégés if you will, in fact one [whom] I took into practice and [I am] practicing with. So you get to see that face value, like hey this is just like we did in the clinic and hey, it really works that way. (HCF#2)

Some faculty mentors reported that as members of the health care faculty it was important to support health care students’ career and psychosocial development needs. One mentor expressed it this way: “I think it’s implied that as a faculty member, being a role model and being a mentor…is part of that underground curriculum…we are meant to do things above and beyond, and I think that would include…oh everything from meeting with students to paying attention.” (HCF#1)

Some faculty mentor interviewees felt it was important for health care faculty to support health care students’ career and psychosocial development needs because students needed role models to learn from, to succeed, and in order to practice. “I think that is why it is particularly important for us to go ahead and address these issues as part of our role [when we train]” (HCF#1), a mentor said.

Some faculty members observed that not all faculty members believed that they should be a role model or mentor. In addition, some also felt that not all faculty members deserve to be role models and/or mentors. However, as one faculty member noted: “It is important to support
health care students’ career and psychosocial development needs” (HCF#3). Recognizing the importance and variety of students’ developmental needs at different stages along the curriculum, some faculty members who participated in the study agreed that different students might benefit more with different mentors at different stages of training. To this end, a good mentor/role model may be needed at different levels of the training continuum to serve on two fronts. In other words, an effective mentor could win the confidence of a student on the personal front at any stage or trimester in the student’s training experience, at the same time the halo effect from this kind of impact on the faculty member could also translate to motivation and confidence for the mentor.

Some faculty member interviewees also expressed that they were surprised at the depth of involvement required to fulfill the role of mentoring. Some felt that when they joined the institution, all they thought was required of them as faculty was to instruct their students: “Here were your books, here’s your course, go home and learn the material and here’s your test and good luck on the way out” (HCF#1), a mentor said. According to some faculty mentors, to be effective in helping students answer some important training questions also required that they get to know students as individuals. Quite often, for some faculty mentors, the opportunity to get to know students was through sports and other activities outside of the classroom.

According to the survey, there were more part-time employees/instructors than full-time faculty. Further, given the fact that some of the interactive opportunities conducive to developing meaningful relationships between mentors and protégés occurred outside of the classroom and were social in nature, if faculty members were to get to know students, then institutions of health care training would have to strike a balance in their employment practices. For example, this fact was reiterated by a faculty mentor who said: “…you get a so-called practice management...
consultant to supplement a course work in the area of business either because the teaching of this business course didn’t exist or there wasn’t much of it to meet what students needed to know…” (HCF#1). In this case, the consultant would have little or no interaction outside of the classroom with students, and this could create a problem where there are too many consultants complementing course work along the curriculum path and in essence, reducing the number of potential mentors available to work with students. Therefore, is it possible that the literature’s observation of “weakness” and “lack of consistency” in training (Bougie, 2000) may in fact be due to the inclusion of significant numbers of part-time faculty at health care training sites? If this is true, then the gap left by part-time employees might contribute to fragmentation when the goal of health care training is to educate the whole person. In this regard, missed opportunities on the part of faculty members to get to know students better would, in-turn, put the professional and psychosocial development skills of students in jeopardy. According to one faculty mentor who was interviewed: “Attitudes and skills and the teamwork, the camaraderie that you feel are (as) essential to human operation as any amount of knowledge of anything … that’s what you need, its what every organization needs” (HCF#5). Some mentors agreed that if they could not provide the profession with the appropriate modeling that students needed, then one can not blame students who would have to choose some other models. Therefore, it is important that educators appreciate personal and professional impact and embrace their roles as mentors/role models during the training of students.

In addition, faculty mentors who were interviewed for this study reported that they were good *listeners* and this was important if they were to understand the needs of students. They also reported that they were good *observers*; they learned to interact with students and, to understand how students interact with each other and with other faculty members. Some faculty mentors
agreed that further education was needed in this area. For example: “I think if there’s a really bad situation that occurred between a student and a faculty member that can affect a student when he or she becomes a practitioner later, and how he or she might treat their patients. At the same time if there’s something exceptional that occurred (also), that too can play out… I think a lot of people aren’t on the level of taking everything in and giving it back out, but the people that do end up having a positive relationship with their faculty members also take that into their practice” (HCF#4), a mentor said. Moreover, some faculty mentors thought that some self-reflection on the part of mentors was important to ascertain whether they have the capacity to mentor beyond just the desire to do it.

Further, some mentors felt that more colleges needed to accept the responsibility for students’ psychosocial grooming. Some interviewees thought that academic advisors could also be mentors. Some faculty mentors agreed that a lot of their mentoring occurred outside of the classroom and in the social arena: “I think social events provided the opportunity to build some fraternity and to provide some mentoring” (HCF#3), one mentor said. Some mentors felt that a lot of faculty members may not appreciate or understand students’ attitudes and/or what students’ developmental needs may be. Again, this presents the argument that professional grooming of students cannot be left to chance; this presents an opportunity for proactive work on the part of colleges of chiropractic education. In this regard, some mentors thought that every faculty member has a role to play and the opportunity to find their niche to serve as a mentor; some more so than others. According to a mentor/faculty member; “it is important to support health care students’ career and psychosocial development needs” (HCF#3). This point is consistent with the literature (see Darling, 1989; Johnson, 2003), and points to the value of “minor” mentors.
Conclusion

Faculty mentors interviewed for this study felt that connection with students was important as well as essential if relationships with students were to be stimulated as well as built. Some faculty members expressed the feelings that the old days of a faculty standing up in front of 100 to 200 students to deliver lectures, walking out of the lecture hall and expecting students to show up again within a week’s time were gone. According to Dodgson (1986), it is possible that this model of teaching may not serve health care professionals well; it contributes to fragmentation and presents a relationship model that may have serious implications for what the student might translate as a good model of relationship when it comes to doctor-patient relationship in practice. One faculty mentor said: “I think a lot of modeling occurs, and I think that good mentoring with students,…good role modeling, directly impacts how these students are going to create their relationships with their own patients” (HCF#1).

Mentoring and mentoring relationship tools provide the flexibility demanded by this type of apprenticeship model. According to the quantitative and qualitative data obtained for this study from health care students and faculty members at the NYCC, mentoring and mentoring relationships were important along all levels of the trimesters of training. Faculty mentors would need to embrace the apprenticeship model that, in large part, is a model that incorporates tools of personal relationship development— tools such as consistency, willingness to listen, doing things with the mentee rather than for the mentee, nonjudgmental stance, availability, honesty, patience and integrity— in explicating health care training goals. These goals include but are not limited to: supporting and facilitating a trainee's education, acquisition of clinical and/or research skills as well as career and psychosocial development skills.

This section presented an analysis of both the quantitative and qualitative data collected
for this study. Gleaning from the survey instruments and the in-depth interview responses gathered for this study from faculty and students regarding their mentoring experiences at the NYCC, it is appropriate to say that there is a need for a more programmatic attention to mentoring at NYCC; it should be present and should continue throughout all the trimesters of academic training and students’ career development. Consequently, it is also possible that regardless of what form mentoring takes, be it accidental, informal or programmed, the net result would be more or less dependent on the needs of students at the time it is given or sought by recipients. To this end, mentoring efforts would likely be improved, their impact better quantified, if the process is kept open to receive more critical and ongoing scrutiny and assessment.

In sum, the questions I raised in this study were whether mentoring was occurring, its perceived benefits, and whether cross-ethnic and cross-gender issues affected the perceived benefits of mentoring at the NYCC. My investigation revealed that: mentoring occurred during health care training; both faculty and students reported they perceived the benefits of mentoring; and they also reported that cross-ethnic and cross-gender issues largely did not affect the perceived benefits of mentoring received by students or given by faculty. Chapter Five will present the conclusion and recommendations based on this result.
Chapter Five

Conclusion and Recommendations

The study described in the preceding chapters mainly looked at issues related to mentoring at a health care training site. Mentoring has been acknowledged by an extensive body of literature as an important element of training in the progress of students or trainees. Research studies have looked at the role of mentoring relationships on the pace of progress made by students or trainees in various fields. This study identified two interrelated problems: persons need mentoring at all stages of their career, and mentoring must become part of the fabric of organizational life if organizations want to reduce fragmentation. In the area of health care, two factors, according to studies (e.g., Dancer, 2003) complicate the formation of strong mentoring relationships. One issue is diversity; as there is an increasingly large population of gender and ethnically diverse students and faculty in health care, it must be asked if the cross-ethnic and cross-gender nature of some of the mentoring relationships that are formed in health care training settings impact the quality of the mentoring, either positively or negatively. A second issue revolves around the very nature of health care training itself. In the case of the field of health care training studied in this report, chiropractic students need to master evaluation and care for the educational, physical and communicative needs of their clients as well as the administrative needs of an effective practice. All of these call for intensive clinical training entailing the successful execution of a number of experiences ranging from taking patient histories to performing any number of physical or anatomical manipulations, all of this occurring in a very hands-on way.
This study therefore explored mentoring as a possible solution to various problems cited by the literature in the challenge to bridge theory and practice during training in the field of chiropractics. The results may also clarify the nature of mentoring and what works best for mentors and mentees alike. It also adds to the literature about best practices for mentoring in the health care field, with its emphasis on hands-on, experiential and often personal interaction in clinical practice on a daily basis.

The literature depicts that mentoring itself has a long research tradition, although most empirical work has been conducted in business, management, and higher education settings. There are a number of conceptual and theoretical models that have been developed from research in these settings. I have reviewed the conceptual work and noted a few essential frameworks that stand out for their potential application to chiropractic clinical education. The need for mentoring in chiropractic education is directly related to the need for mentoring in other health care training programs. Mentoring provides a source of effective role models, psychosocial support, opportunities for reflection on practice experiences, and career advice and encouragement. Mentoring is generally viewed as functional, in the sense that it is focused on professional socialization and career development, or humanist, in the sense that it is focused on learning in a climate that encourages open communication and initiative. It certainly seems possible that the “ideal” mentoring program combines these two perspectives, although evidence suggests that no one model has yet done so (Darwin, 2000; Ellinger, 2002).

I sought to determine if there were effective mentoring and mentoring relationships being established at a targeted health care educational training institution and whether or not the mentoring that was established was strong enough to positively impact the quality of the training that was taking place. On the basis of the findings of the surveys, and in keeping with the
findings of the literature as well, the study also discerned whether or not one type of mentoring or another is favored by the faculty/staff or students involved in mentoring at this training site. This finding will contribute to the literature, which continues to search for a model of best practices for mentoring in the health care field.

Results of this study indicated that New York chiropractic students felt that even certain heart-felt casual conversations with faculty members whom they may not consider as mentors also impacted their ability to connect with the bigger picture of their training, whereas faculty mentors felt that as a member of the health care faculty it was important to support health care students’ career and psychosocial development. Some faculty observed that not all faculty members believed that they should play the role of a role model or mentor. Some also felt that not all faculty members deserve to be a role model and/or a mentor. Results also demonstrated that some mentors felt that more colleges needed to accept the responsibility for student’s psychosocial grooming. They thought that academic advisors could also be mentors. Thus, it appears from this study that informal mentoring must be coupled with formal mentoring policies for students at all stages of their development and that race, gender, and ethnicity largely were not factors in the mutual satisfaction of mentoring practices.

Conclusion

In my study, I found that the skills, qualities and attitudes of individual mentors were important to chiropractic students. In addition, the literature also noted that these skills were more important to a positive practice placement than the learning environment. Gray and Smith (2000) identified the qualities of an effective mentor from a student's perspective using a
longitudinal grounded theory approach. Chiropractic students in my study reported that the student/mentor relationship was influential in optimizing learning; they placed emphasis on the individual mentor, not the learning environment. These findings mirrored previous results (e.g. Baillie, 1993; Earnshaw, 1995; Andrews & Wallis, 1999). In line with the literature, New York Chiropractic students also regarded attitudes and behaviors as important factors in promoting learning (Cahill, 1996; Papp, et al., 2003). A “good” mentor from the chiropractic students’ perspective is friendly, patient, and has a good sense of humor. They further reported that good mentors have a positive attitude and are able to provide individual support; they are also accessible. It appears that the qualities required by the students are based in emotion, and this translates to mean that chiropractic students have a need for the student/mentor relationship to be nurturing: The mentor needs to be approachable and accessible in practical and emotional terms. A similar student preference was noted in other practical professions. Aagaard and Hauer (2003) studied medical students in the third year of a medical degree. In this situation the role of the mentor was that of a preceptor and not mandatory, however students were allowed to choose their mentor. Aagaard and Hauer reported that the mentor of choice by the third year medical students they studied preferred an older woman, which may support the need for nurturing.

As demonstrated by Cahill (1996), Aagaard and Hauer (2003), Papp, et al., (2003), and Gafney (2005), my findings also showed that New York chiropractic students looked for inspiration from role models who demonstrated caring for patients and students. The ability to demonstrate care for patients and students was further highlighted as early as 1986 by West and Rushton and subsequently by Pearcey and Elliott (2004) who suggested that to teach people to care we have to practice what we preach and care for them. Cahill (1996) concludes that a good student/mentor relationship should be based on partnership, consistency and mutual respect.
Examination of my data indicated that chiropractic students appreciated spending quality time with their mentors and valued individual face-to-face contact. In line with the literature (Cahill, 1996; Gray & Smith, 2000), my data also indicated that chiropractic students recognized that mentors had multiple roles and competing priorities. Chiropractic students wanted their placements to be stimulating and considered that a teaching qualification did not necessarily enhance the mentors' skills (Andrews & Chilton, 2000). Likewise, my data indicated that almost one-half of the faculty mentors who participated in the study reported they did not attend a health care training school or hold a Doctor of Chiropractic degree. However the “knowledgeable friend” advocated by Bennett (2002) can be elusive, and according to Cahill (1996) some students have identified negative experiences in the practice environment. Cahill (1996) takes a qualitative approach to explore the subjective experiences of students’ relationships with their mentors and highlights potentially damaging experiences that students have endured because of their mentors. Students report being ignored by mentors even when addressing them directly and describe “lazy” mentors who expect the students to do their work for them. More recent research suggests that students can learn by turning their negative experiences into leaning opportunities and by deciding how not to practice (Eby, et al., 2004; Pearcey & Elliott, 2004). Gray and Smith (2000) suggest that mentors feel a genuine concern for students and want to offer good support. Difficulties arise when mentoring conflicts with other professional or operational demands and expectations. The literature suggests that it is not simply time allocation but role allocation. Mentors looked to managers for guidance and support on how to prioritize mentoring in relation to other activities and duties (Pulsford, et al., 2002). Existing health professions education curriculum emphasizes that practical competence has affected the function and nature of mentoring. Current mentorship programs should be reviewed to ensure that they equip mentors
not only to deal with the changes that have taken place but also to cope with the more subtle demands of their expanding role (Gray & Smith, 2000).

Although the theory of assessment is usually addressed in mentor programming, it is a skill that needs to be practiced and is not detached from feelings or emotions. Feelings can affect academic judgment and need to be managed. Thus a “buddy system” or peer coaching could be introduced to support the mentor and could be based on the preceptorship process utilizing the clinical supervision procedures. Faculty/staff request of more support from higher education may appear to be relatively straightforward but there are deeper questions to be addressed. For example, what form should this support take and where might it be usefully focused? Conjoining cognitive and affective behavior is a complex skill set and involves core emotions to support the relationship. One option may be a form of tutorial support for mentors that suggests coping strategies and generally promotes teaching and assessment skills. In the literature it was apparent that mentors wanted their educational role to be valued more highly (Schecler, Tuffli, Schalch, et al., 2004). Of particular importance is sufficient time allocation and respect from colleagues. The question then arises whether clinical work might be allocated differently or clinical teaching adjusted so that mentoring work is both highly valued and demonstrably productive. These issues need to be addressed by further research and they present opportunities for service managers to adjust their practices. From the students’ perspective a good mentor is a nurturing teacher and a “knowledgeable friend” (Bennett, 2002). These are emotive attributes, but mentors, while recognizing the importance of the personal relationship, also understand that they have a responsibility to maintain the standards of their profession and a contractual duty of teaching, research and service to their employer. The dichotomy of multiple roles which exists in mentoring can conflict with the nurturing approach students seek and may explain why the
experience can sometimes be negative for the student and the mentor. Mentors should exercise caution when establishing relationships with students and set clear boundaries at the outset to ensure that their role is not compromised. Roles and responsibilities should be defined at the beginning of the placement so that students and mentors both have realistic expectations of the student-mentor relationship thus reducing the opportunity for misunderstanding and mistrust. Ground rules for the placement should be established at the initial interview between the mentor and student and could be developed into a learning contract. However, a wider debate about the focus of work and how far advocacy of the student is mandated now seems in order. The mentor needs to be supported in her or his other roles by peers and managers so that the student/mentor relationship can be reciprocally effective. The role of the mentor is essential to the development of the profession. For example, chiropractors need to use clinical reasoning to make effective judgments that will enable them to function as competent health care practitioners. The value of the mentorship role should be recognized and adequately supported in practice by the staff, colleagues and managers. Passing on knowledge and skills to the next generation of chiropractors is a fundamental aspect of teaching, hence supporting the role of mentors is an investment in students and the future of the profession.

A successful mentoring relationship incorporates both personal and professional development elements. The mentor can be critical in a constructive way, and that involves taking a chance. How the criticism is received makes the difference. If the protégé is consistently defensive and if the defensiveness cannot be overcome, then the relationship cannot progress, and neither can learn from the other; mentoring requires maturity from both parties. In a remarkable treatise on teaching, *The Courage to Teach*, Palmer (2007) reinforces the honest and reciprocal component to the mentoring relationship, when he writes, “Mentoring is a mutuality
that requires more than meeting the right teacher; the teacher must meet the right student. In this encounter, not only are the qualities of the mentor revealed, but the qualities of the student are drawn out in a way that is equally revealing” (p. 22).

Like good teaching, mentoring is “an act of hospitality toward the young and hospitality is always an act that benefits the host even more than the guest” (Palmer, 2007). Like most relationships, mentoring develops and matures over time, step-by-step, not overnight. As my data indicated, mentoring is nothing formal, and some mentors may not even realize their impact. For instance, my mentors have been present for various periods of my professional life, and some have since died. Yet even though we are separated by distance or death, their lessons and their examples remain present in me. “The power of mentors is in their capacity to awaken a truth within us a truth we can reclaim years later by recalling their impact on our lives” (Palmer, 2007, p. 22). Consequently, when I am stuck, I often find myself asking “How Bami would have handled this?” or “What would Hajia say in this situation?”

According to the literature, the recurring dimensions of mentoring relationships include: the transmission of wisdom, generosity without hesitation, modeling integrity, the right balance of approval and constructive criticism, genuine sense of caring, collaborative search for meaning, evolving partnership, and a sense of humor (Johnson, 2002; 2003).

Interestingly, my data revealed that mentoring occurred during health care training at the NYCC; faculty and students alike perceived the benefits of entering into mentoring relationships; and cross-ethnic and cross-gender issues did not affect the perceived benefits of mentoring received or given at this school of health care training. The finding further revealed that most participants in the study were satisfied with the quality of mentorship they experienced. In addition, a majority of the faculty took personal interest in their protégés career: they advised
their protégés, coached them on special projects, informed them of up-coming learning opportunities, listened to their personal problems, as well as helped coordinate their professional goals. My data also revealed that most chiropractic students who participated in the study had a mentor, and in some cases, some had more than one. Some chiropractic students reported it was important to have a mentor during health care training. Some felt it was important to have both formal and informal mentors. In general, chiropractic students agreed that the best career development they received was their mentors sharing valuable career development information with them. My data also revealed that faculty mentors were helpful because they provided chiropractic students with opportunities to develop their career and psychosocial skills. The interaction between students and faculty which resulted in mentoring relationships, as established by this study, was in line with what the literature has reported would happen when mentoring occurred (Bennett, 2002). Following is the model that will be helpful for the concerned mentoring staff to built a good relationship with students of New York Chiropractic College.

Recommendations

Nolinske’s (1995) theoretical model of supervision involved several clinicians in the course of a student's placement at a particular site. This model is collaborative in that two or more students were supervised by two or more clinicians. The rationale for such a model lies in what are perceived as the diverse needs of students as they develop clinical skills and professional attitudes and identities during their clinical education experience. According to Nolinske, these needs are primarily met through the development of meaningful relationships. Nolinske defined a mentoring relationship as an interactive relationship between mentor and
protégé in order to provide information, role-modeling, wisdom, and emotional support. The process of developing a mentoring relationship was described as complex, requiring emotional commitment by both participants with considerable time and effort. The author also identified a continuum of peer relationships developed by students in their professional education. According to the author, there are information peers, who are primary sources of information, collegial peers, who provide encouragement and support in both personal and professional areas, and special peers, with whom rapport and emotional connections are established. Although Nolinske’s model addresses the loose arrangement of informal mentoring, it nonetheless says nothing about the value of formal early-stage mentorship in a health care training site.

As described by Nolinske, these relationships may be developed with clinical educators’ and other clinicians at the site, as well as with academic faculty and peers. Accepting the fact that one individual cannot effectively fill all of these roles, several individuals should share the responsibility of mentoring several students. In this structure, clinicians assume a mentoring role in which they are particularly strong, either coordinating the overall process or sharing expertise in an area of practice or theory. In this regard, no single clinician has sole responsibility for the students’ development. Students also are encouraged to establish meaningful peer relationships and to use each other as resources.

Clear communication and consistency among students and mentors, in my view, are critical in such a model. Theoretically, a learner-centered approach helps unify the diverse perspectives and approaches of different clinicians by focusing on the goals and learning needs of the students. Expectations for goals and processes in the placement, in my opinion, must be clearly understood by both mentors and students. Regular meetings are necessary to facilitate such communication. One mentor can assume the major responsibility of overseeing the process.
Learning contracts and dialogic journals could also contribute to the development of communication skills and consistency.

There are potential benefits to this model for both the students and the mentors especially at the clinical phases of training. Through involvement with more clinicians and students during fieldwork, students could develop diverse relationships, experience a range of perspectives and approaches, identify appropriate role models, and benefit from the unique strengths and interests of a number of individuals. Of course more role models will not necessarily be better role models. It seems safe to assume that students, for the most part, can distinguish good role models from bad role models. In theory, they would be equipped to assume responsibility for their learning and seek out appropriate resources to meet their individual needs. This process could enhance skills and attitudes of lifelong learning. A learner-centered approach by the mentors also could lead to greater consistency in implementation of the clinical education process, but, this would require adequate clinical educator training and support. Mentors might experience less stress from responsibility and time pressures and would be able to share their particular strengths and interests in the context of the mentoring relationship. This model could help make efficient use of potentially scarce resources of staffing and time through the flexibility and creativity inherent in the structure, but again data to support these assertions are lacking. Moreover, this model may not work well for students in the first phases of training, when academic pursuit is the focus. However, it may be possible that a formally organized mentoring program at the initial phase of training would work well for students who are at the beginning stages of training, and Nolinske’s (1995) model would provide a balance at the clinical phases when students need to be exposed to the many hands-on skills as well as the professional attitudes of practice.
Mentors provide an “enabling” relationship to encourage other people’s growth and development and, in primary care settings, mentorship can benefit three groups of people or organizations:

1. Mentors, who can gain personal satisfaction and learning from assisting the development of others;
2. Mentees, who can achieve greater learning or job satisfaction and more possibilities of advancement;
3. Organizations whose workforce can gain greater workplace satisfaction and motivation through professional development and on-going student feedback.

Of course, mentors must also possess certain qualities, including empathy, maturity, self-confidence, resourcefulness and a willingness to commit time and energy to others. Because no one person has all of these attributes, some authors believe that mentees are served better by mentoring teams, which are similar to supervising teams, than by single, “true” mentors (Andrews & Wallis, 1999).

The key to successful mentoring and coaching is the ability to communicate appropriately. Communication is not only verbal however, and it is important to remember that there are other ways in which messages can be passed between people. Other means of communication include gestures, “minimal encouragers” such as non-verbal agreements, eye contact and gaze, intonation or tone of voice, and “body language”. It should also be remembered that people can interpret messages according to their personal views, and in some circumstances, they can be led to misinterpret them. Relations of power in societies can also affect communication (Barsky, 2001), and mentors should convey messages to the mentees carefully. Interactive listening skills have been used by nurses, who are in ideal positions to
coach students or patients and help them to become their own “insider experts”.

Mentees who feel they require further development should be encouraged to identify these areas openly. They should not perceive their need for development as a weakness and should not assume that they have to improve themselves on their own. Feedback analysis is an essential part of coaching and mentoring, and can be achieved using Pendleton's Rules of Four Steps (Benson, 2005). This involves discussing what has gone right, starting with mentees’ opinions of their strengths followed by mentors’ views, and then discussion of what needs to be improved, again starting with the mentees’ opinions followed by those of the mentors. Feedback is also needed on how well mentees and mentors work together, because mentors also need constructive feedback on their performance. Successful mentoring can be measured by how supported mentees feel, how well they have integrated theory and practice in their study or workplaces, and whether they can demonstrate safe and competent practice. To achieve these, mentors have to be aware of the most effective teaching techniques.

In general, health care training institutions and particularly chiropractic training has to become more proactive in defining student and faculty development programs that bridge theory and practice. Understanding what students and faculty members need in order to effectively bridge this theory-practice gap, health care training sites may need to revisit the apprenticeship model of health care teaching that has operated effectively for hundreds of years and may hold some promise with respect to mentoring the relationship aspects of health care training. Upgrading the apprenticeship model to incorporate new technologies of human and relationship development models would provide the flexibility for health care training sites to meet the developmental needs of students across the various stages of development from the first trimester through the tenth.
References


database.


(pp. 23-49) **City:** Cambridge University Press.


Last accessed on July 26, 2008 at:


Washington, D. C.


Publications Newbury Park, CA.


Pulsford, D., Boit, K., & Owen, S. (2002). Are mentors ready to make a difference?


Shaw, K.B., Mist, S., Dixon, M.W., Goldby, M., Weih, J., Bauer, V. K., & Ritenbaugh,


Appendices

Appendix A: Health Care Student Survey Questionnaire

A survey of Health Care Student’s Perception of Mentoring and Mentoring Relationships at the New York Chiropractic College, Seneca Falls, New York

Survey Questionnaire

The primary purpose of this survey is to ascertain the perceptions of certain health care students at the New York Chiropractic College toward mentoring and mentoring relationships. Information obtained in this effort will be a useful guide toward future work on the planning of health care training services for individuals entering health care school.

This survey questionnaire is divided into two sections: Biographical Characteristics and Current Mentoring Relationships Status. Please take time to respond to all items on this survey.

PLEASE, DO NOT WRITE YOUR NAME ANYWHERE ON THIS SURVEY FORM. THANK YOU.

NOTE: The information you provide will be grouped with those of other respondents and only a summary analysis of the findings will be presented. In addition, no stress should be associated with this survey in that it requires only self-examination of your perceptions toward mentoring and mentoring relationships at the New York Chiropractic College. However, if upon receipt of the survey you choose not to respond to the survey items, you are free not to complete the form. Your participation is voluntary.

For more information about this research study, please contact the investigator, Hussain B. Ahmed at 848 Arnett Blvd., Rochester, NY 14619, Telephone: (585)-436-3637, E-mail: Hussainbahmed@yahoo.com. If you have any questions about your rights as a research subject, you may contact The Human Subjects Protection Specialist at the University of Rochester Research Subjects Review Board, Telephone: (585)-506-0005, for long-distance you may call toll-free, (877)-449-4441.

Thank you for your cooperation.

Copyright©2001, H. B. Ahmed, University of Rochester, Rochester, NY
This survey is designed to collect data on the perceptions of health care students toward mentoring and mentoring relationships, and to determine whether mentoring is occurring between health care students and health care faculty. There are no right or wrong answers. Please respond to each item by using a BLACK or BLUE pen to check the appropriate bubble. Thank you.

Section 1: Biographical Characteristics

1. How would you like to be identified?
   - African American
   - Mainland Puerto Rican
   - European American
   - Mexican American
   - Hispanic American
   - Native American
   - Other

   If other, please indicate: ____________________________________

2. Please check your appropriate age:
   - 0-25yrs.
   - 25-30yrs.
   - 30-35yrs.
   - 35-40yrs.
   - 40-45yrs.
   - 45-50yrs.
   - Over 50yrs.

3. Gender:
   - Female
   - Male

4. Marital Status:
   - Married
   - Single
   - Separated
   - Divorced
   - Widowed

5. What trimester of chiropractic training are you in?
   - 1st Trimester
   - 2nd Trimester
   - 3rd Trimester
   - 4th Trimester
   - 5th Trimester
   - 6th Trimester
   - 7th Trimester
   - 8th Trimester
   - 9th Trimester
   - 10th Trimester

6. Expected year of graduation from the New York Chiropractic College?
   Please indicate: ____________________________________

7. Do you plan to practice chiropractic after you graduate from New York Chiropractic College?
   - Yes
   - No
8. Do you plan to obtain postgraduate training after you graduate from New York Chiropractic College?

O Yes

O No

8a. if your response to item #8 is “yes”, do you plan to do research?

O Yes

O No

8b. if your response to item #8 is “No”, please elaborate on your plans:

__________________________________________________________________

__________________________________________________________________

Section II: Current Mentoring and Mentoring Relationship Status.

Key Terms:
A mentor is an influential individual who has used their influence to provide you with support to develop your career and psychosocial development skills, deemed necessary, to function as a health care student and as a potential health care practitioner.

A mentor is not a role model who exerts no direct influence on behalf of a student. Nor is a professor or instructor, who focuses on the academic development of a student. However, role models and instructors may be candidates for mentoring relationships.

A formal mentor is a member of the health care faculty who is assigned to mentor a health care student in meeting his/her career and psychosocial development needs of health care training.

An informal mentor is a member of the health care faculty who, on their own, take interest to promote a health care student’s career and psychosocial development needs of health care training.

Part 1:
Directions: Please fill-in the appropriate bubble (O) to indicate your BEST response(s) to items 9-39.

9. Have you ever had a mentor?

O Yes

O No

If your response to item #9 is “No”, please go straight to item #21 to continue with the survey.
Thank you.

If your response to item #9 is “Yes”, please proceed with item #10. Thank you.
10. How many mentors have you had since coming to the New York Chiropractic College (NYCC)?

   O 1       O 2       O 3       O 4

   Over 4 please specify: _______________ Current _______________ Past

11. Do you currently have a mentor?

   O Yes       O No

11a. How many mentors do you currently have?

   O 1       O 2       O 3       O 4

12. Tell us about your current or last four mentor(s). Please check all that apply.

   Mentor(s):  1       2       3       4

   Someone at NYCC       O       O       O       O
   Relationship still exist       O       O       O       O
   Relationship has ended       O       O       O       O

   Family member       O       O       O       O
   Relationship still exist       O       O       O       O
   Relationship has ended       O       O       O       O

   Friend/peer       O       O       O       O
   Relationship still exist       O       O       O       O
   Relationship has ended       O       O       O       O

   Other       O       O       O       O
   Relationship still exist       O       O       O       O
   Relationship has ended       O       O       O       O

13. If your current or last four mentors are not based at NYCC, please tell us where your mentors are based outside the NYCC.

   Mentor(s):  1       2       3       4

   O       O       O       O

   Base (d) at:
   City: _______________ _______________ _______________ _______________
   State: _______________ _______________ _______________ _______________
14. Is your mentor in the health care profession?
   O Yes    O No

15. Is your current or last four mentors in the same specialty as you?
   Mentor(s):
   Yes
   No

16. What is the appropriate age of your current or last four mentors?
   Mentor(s):
   Older
   Same age
   Younger

17. What is the gender of your current or last four mentors?
   Mentor(s):
   Male
   Female

18. Is it important to you that your mentor is the same gender as you?
   O Yes    O No

18a. If your response to item #18 is “No”,
   Please explain: __________________________________________________________
   __________________________________________________________
   __________________________________________________________

18b. If your response to item #18 is “Yes”,
   Please explain: __________________________________________________________
   __________________________________________________________
   __________________________________________________________

19. Is your current or last four mentors the same ethnicity/race as you? Please check all that apply.
   Mentor(s):
   1 2 3 4
20. Is it important to you that your mentor is the same ethnicity/race as you?

O Yes  O No

20a. If your response is “Yes” to item #20,

Please explain: ___________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

20b. If your response is “No” to item #20,

Please explain: __________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

21. Do you feel it is important to have a mentor during health care training?

O Yes  O No

21a. If your response to item #21 is “No”

Please explain: __________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

22. Would you participate in mentoring if made available to you at NYCC?

O Yes  O No  O Maybe

22a. If your response to item #22 is “No” or “Maybe”,

Please explain: __________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

23. If you feel it is important to have a mentor during health care training, would you like to have formal mentoring, informal mentoring or combination of both?

O Formal mentoring  O Informal mentoring  O Combination of both
24. If you feel it is important to have a mentor during health care training, which of these career development functions would you say best describe why you would like to have a mentor? Please check all that apply.

- I want to be sponsored
- I want to be exposed to the things I need to know
- I want to be coached
- I want to get important assignments
- I want my professional goals to be coordinated
- I want to be stimulated to learn more
- I want the norms of the health care profession to be conveyed to me
- I want to develop my professional development skills
- I want career development advice
- I want valuable career development information
- Other

24a. If “Other”, please indicate: ________________________________

______________________________

25. If you feel it is important to have a mentor during health care training, which of these psychosocial development functions would you say best describe why you would like to have a mentor? Please check all that apply.

- I want someone to listen to me
- I want someone to take personal interest in me
- I want someone to affirm me
- I want someone to counsel me
- I want someone to accept me
- I want to make friends with someone
- I want someone to motivate me
- I want someone to gain my confidence
- I want someone to talk to me
- I want someone to be comfortable with me
- I want someone to spend time with me
- Other

25a. If “Other”, please indicate: ________________________________

______________________________

NOTE: If you do not have a mentor while attending the New York Chiropractic College, you may STOP here now and return your survey in the enclosed envelope to Ms. Dawn Stedge at Office for Chiropractic Education. Thank you.
The remainder of this survey is intended for ONLY those individuals who have (had) mentors while attending the New York Chiropractic College. Please proceed. Thank you.

26. How did you meet your current or last four mentors?

Mentor(s): 1 2 3 4

Formally  O O O O
Informally O O O O

27. If you met your current or last four mentors formally, was your mentor assigned to you?

Mentor(s): 1 2 3 4

Yes  O O O O
No  O O O O

28. If you met your current or last four mentors informally, who initiated the meeting?

Mentor(s): 1 2 3 4

My mentor(s)  O O O O
Myself  O O O O
I was introduced  O O O O
Other  O O O O

28a. If your response to item #28 is “Other”,

Please explain: ______________________________________________________
_________________________________________________________________

29. For how long have you known your current or last four mentors?

Mentor(s): 1 2 3 4

One to three months  O O O O
Three to six months  O O O O
Six to nine months  O O O O
Nine months to one year  O O O O
One year or more  O O O O

30. If you have more than one mentor, which of the following will best describe why you have more than one mentor while in training at the NYCC? Please check all that apply.

Mentor(s): 1 2 3 4
The relationship did not work out  O O O O O
My needs were not being met by my mentor  O O O O O
My career/psychosocial needs changed  O O O O O
I was uncomfortable with my mentor  O O O O O
My mentor demanded too much from me  O O O O O
My mentor was not available enough  O O O O O
We went our own ways  O O O O O
My mentor changed departments  O O O O O
My mentor left NYCC  O O O O O
My career needs are met by a variety of professionals  O O O O O
Other  O O O O O

30a. If your response to item #30 is “Other”,
Please explain: ______________________________________________________
____________________________________________________________________
____________________________________________________________________

31. How often do you meet with your current or last four mentors?

Mentor(s): 1 2 3 4

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a week</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Once every other week</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Once a month</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Once every other month</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Once every trimester</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

31a. If your response to item #31 is “Other”,
Please explain: ______________________________________________________
____________________________________________________________________
____________________________________________________________________

32. On the average, how much time do you spend with your current or last four mentors when you meet?

Mentor(s): 1 2 3 4

<table>
<thead>
<tr>
<th>Time Duration</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to five minutes</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Less than fifteen minutes</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Less than thirty minutes</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>One hour</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>One hour or more</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
As much time as needed O O O O O

33. At which stage of the mentoring relationship would you say you are in with your current or last four mentors? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship has just started</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is increasing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a positive way because my career needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a negative way because my career needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a positive way because my psychosocial needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a negative way because my psychosocial needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My mentor is like a peer or friend in this relationship</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

33a. If your response to item #33 is “Other”,

Please explain: _______________________________________________________
_________________________________________________________________
_________________________________________________________________

34. Which of these career development functions would you say best describe why you feel that your current or last four mentors were helpful to you? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mentor sponsor me</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My mentor exposes me to things I need to know</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My mentor coach me when I need coaching</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My mentor provide me with opportunities to develop my skills</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My mentor looks out for me by giving me advice</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My mentor share valuable career development information with me</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

34a. If your response to item #34 is “Other”,

Please explain: _______________________________________________________
_________________________________________________________________
35. Which of these psychosocial development functions would you say best describe why you feel that your current or last four mentors were helpful to you? Please check all that apply.

Mentor(s): 1 2 3 4

- My mentor advise me: O O O O
- My mentor accept me for who I am: O O O O
- My mentor affirm me: O O O O
- My mentor counsel me: O O O O
- My mentor is like my friend: O O O O
- Other: O O O O

35a. If your response to item #35 is “Other”,

Please explain: __________________________________________
_________________________________________________________________
_________________________________________________________________

36. In your relationship with your current or last four mentors, would you say that you are satisfied with the mentoring you have received?

Mentor(s): 1 2 3 4

- Yes: O O O O
- No: O O O O
- Somewhat: O O O O

37. Would you recommend formal mentoring, informal mentoring, combination of both, or no mentoring for other health care students at NYCC?

- Formal mentoring: O
- Informal mentoring: O
- Combination of both: O
- No mentoring: O

37a. Please explain below:

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

38. How do you communicate with your current or last four mentors? Please check all that apply.

Mentor(s): 1 2 3 4

- Face to face: O O O O
On the phone  O  O  O  O  O
Through others  O  O  O  O  O
Through e-mail  O  O  O  O  O
Through inter-office memo  O  O  O  O  O
Other  O  O  O  O  O

38a. If “Other”, please indicate: _____________________________________________

39. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through face-to-face contact? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

39a. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through telephone contact? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

39b. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through others? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

39c. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through the e-mail? Please check all
that apply.

Mentor(s): 1 2 3 4

0 to 20% O O O O
20 to 40% O O O O
40 to 60% O O O O
60 to 80% O O O O
80 to 100% O O O O

39d. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through inter-office memo? Please check all that apply.

Mentor(s): 1 2 3 4

0 to 20% O O O O
20 to 40% O O O O
40 to 60% O O O O
60 to 80% O O O O
80 to 100% O O O O

Part II:

Please respond to as many of these items as they relate to your current or last four mentors at NYCC.

Please read each of the following statements carefully. For each, please rate your Level of Agreement on the five-point scale presented below. Please fill in SA if you strongly agree with the statement, A if you agree with the statement, D if you disagree with the statement, SD if you strongly disagree with the statement, and NA if you don’t know or if the question is not applicable. Please mark the ONE best response to each statement below.

40. My mentor takes personal interest in my career.

O Strongly agree O Agree O Disagree O Strongly Disagree
O Don’t Know/NA

41. My mentor gives me important assignments.

O Strongly agree O Agree O Disagree O Strongly Disagree
O Don’t Know/NA

42. My mentor gives me special coaching on projects.

O Strongly agree O Agree O Disagree O Strongly Disagree
O Don’t Know/NA
43. My mentor advises me on up-coming learning opportunities to increase my skills.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

44. My mentor listens to my personal problems.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

45. My mentor helps me coordinate my professional goals.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

46. My mentor accepts me for who I am.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

47. My mentor is able to stimulate my interest to learn more.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

48. My mentor is able to motivate others.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

49. My mentor has gained my confidence.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

50. My mentor is able to convey the norms of the profession of health care to me.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

51. My mentor is my friend.
   O Strongly agree   O Agree   O Disagree   O Strongly Disagree
   O Don’t Know/NA

52. My mentor is effective in communicating with me.
53. My mentor spends considerable time with me.

54. My mentor reassures my confidence when I am in doubts.

55. I feel comfortable with my mentor.

56. Is there anything else that you would like to tell us about your experience with mentors at NYCC? Please write down your comments in the space below.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

57. Would you like to participate in a follow-up, forty-five minutes, in-depth personal interview for this study?

O Yes  O No

57a. If your response to item #57 is “Yes”, please complete the accompanying form by leaving your initials on both your survey and the form for matching. Also, indicate on the form the best way to contact you to arrange for a forty-five minute long personal interview. After completing the form and the survey, please put both form and survey in the accompanying envelope (included in the package), and drop the envelope off to Ms. Dawn Stedge at the Office of Chiropractic Education. Thank you.

57b. If your response to item #57 is “No”, please complete the accompanying form to indicate your interest in receiving a summary of the study results and where the results should be sent to you. After completing the form and the survey, please put both form and survey in the accompanying envelope (included in the package), and drop the envelope off to Ms. Dawn Stedge at the Office of Chiropractic Education. Thank you.

THANK YOU FOR COMPLETING THE SURVEY
Appendix B: Health Care Faculty Survey Questionnaire

A survey of Health Care Faculty’s Perception of Mentoring and Mentoring Relationships at the New York Chiropractic College, Seneca Falls, New York

Survey Questionnaire

The primary purpose of this survey is to ascertain the perceptions of certain health care faculty at the New York Chiropractic College (NYCC) toward mentoring and mentoring relationships. Information obtained in this effort will be a useful guide toward future work on the planning of health care training services for individuals entering health care school.

This survey questionnaire is divided into two sections: Biographical Characteristics and Current Mentoring Relationships Status. Please take time to respond to all items on this survey.

PLEASE, DO NOT WRITE YOUR NAME ANYWHERE ON THIS SURVEY FORM. THANK YOU.

NOTE: The information you provide will be grouped with those of other respondents and only a summary analysis of the findings will be presented. Your confidentiality is guaranteed in that you are not requested to give any self-identifying information. In addition, no stress should be associated with this survey in that it requires only self-examination of your perceptions toward mentoring and mentoring relationships at the New York Chiropractic College. However, if upon receipt of the survey you choose not to respond to the survey items, you are free not to complete the form.

For more information about this research study, please contact the investigator, Hussain B. Ahmed at 848 Arnett Blvd., Rochester, NY 14619, Telephone: (585)-436-3637, E-mail: Hussainbahmed@yahoo.com. If you have any questions about your rights as a research subject, you may contact The Human Subjects Protection Specialist at the University of Rochester Research Subjects Review Board, Telephone: (585)-506-0005, for long-distance you may call toll-free, (877)-449-4441.

Thank you for your cooperation.
This survey is designed to collect data on the perceptions of health care faculty/staff members toward mentoring and mentoring relationships, and to determine whether mentoring is occurring between health care faculty/staff and health care students. There are no right or wrong answers. Please respond to each item by using a BLACK or BLUE pen to check the appropriate bubble. Thank you.

Section 1: Biographical Characteristics

1. How would you like to be identified?
   - O African American
   - O European American
   - O Hispanic American
   - O Mainland Puerto Rico
   - O Mexican American
   - O Native American
   - O Other

1a. If “Other”, please indicate: _______________________________________

2. Please check your appropriate age:
   - O 0- 25yrs.
   - O 25- 30yrs.
   - O 30- 35yrs.
   - O 35- 40yrs.
   - O 40- 45yrs.
   - O 45- 50yrs.
   - O Over 50yrs.

3. Gender:
   - O Female
   - O Male

4. Marital Status:
   - O Married
   - O Single
   - O Separated
   - O Divorced
   - O Widowed

5. When did you join the faculty/staff at the New York Chiropractic College?
   Please specify: _________________________________________________

6. What is your present rank?
   - O Instructor
   - O Assistant Professor
   - O Associate Professor
   - O Professor
   - O Adjunct
   - O Administrator
   - O Other

6a. If “Other”, in what capacity are you affiliated with NYCC?
   Please indicate: _________________________________________________
7. Did you attend a Health Care School?
   O Yes     O No

8. Do you have a health care practice in addition to your responsibilities at NYCC?
   O Yes     O No

8a. If “Yes”, what is your current practice?
   O Full-time     O Part-time

8b. If you have a health care practice, please indicate the category of your practice.
   O Solo     O Group practice     O Community practice     O Other

8c. If “Other”, please specify: ________________________________________

9. What is the highest degree that you hold?
   O D.C     O MD     O PhD     O DC/PhD     O MD/PhD
   O Sc.D     O Ed.D     O J.D     O M. Sc     O M. Ed
   O M.A     O Other

9a. If “Other”, please specify: ________________________________________

9b. What other professional degrees or certificates do you hold?
   Please specify: ________________________________________

10. What is your specialization?
    Please specify: ________________________________________

11. Are you currently doing research in a Health Care Center or other medical facility?
    O Yes     O No

11a. If “Yes”, what is your research interest?
    Please indicate: ________________________________________

11b. If “Yes”, is your research site on-campus or off-campus?
    O On-campus     O Off-campus
11c. If your research site is off-campus, please specify:

City: ________________________________________________
State: ________________________________________________

12. Do you currently have responsibilities at other Health Care School in addition to your responsibilities at NYCC?

O Yes          O No

13. To what health-related organizations do you belong?

Please list:
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

Section II: Current Mentoring and Mentoring Relationship Status.

Key Term:
A protégé is a potential health care practitioner who is inexperienced and is in training to acquire the necessary tools as well as the attitudinal skills, appropriate to practice or do health care research.

A mentor is an influential individual who has used his/her influence to provide a health care student with support to develop his/her career and psychosocial development skills, deemed necessary, to function as a health care student and as a potential practitioner.

A mentor is not a role model who exerts no direct influence on behave of a student. A mentor is not an academic adviser who focuses on the academic development of a student. Role models, professors, academic advisers, administrators and support staff may be candidates for mentoring relationships.

NOTE: The definition of “protégé” used here applies only to protégés at the New York Chiropractic College.

A formal protégé is a health care student who is assigned to a mentor to receive support for his/her career and psychosocial development needs of health care training.

An informal protégé is a health care student who, on his/her own, takes initiative to seek support from a health care faculty/staff in order to fulfill his/her career and psychosocial development needs of health care training.
Part 1:
Directions: Please fill-in the appropriate bubble (O) to indicate your ONE best response(s) to items 14-40.

14. Have you ever had a protégé?

O Yes     O No

NOTE: If your response to item #14 is “No”, please go straight to item #22 to continue with the survey. If your response is “Yes”, please proceed with item #15. Thank you.

15. How many protégés have you had since coming to NYCC? Please include your current protégé, if any, and insert the number of current or past protégés on the appropriate line:

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current:</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Past:</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

15a. Over 4, please specify: Current: ____________ past: ______________

16. Please tell us about your current and any of your last four protégés since coming to NYCC?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st trimester student</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>2nd trimester student</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>3rd trimester student</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>4th trimester student</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>5th trimester student</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
6th trimester student
  Relationship still exist
  Relationship has ended

7th trimester student
  Relationship still exist
  Relationship has ended

8th trimester student
  Relationship still exist
  Relationship has ended

9th trimester student
  Relationship still exist
  Relationship has ended

10th trimester student
  Relationship still exist
  Relationship has ended

Other
  Relationship still exist
  Relationship has ended

16a. If “Other”, please explain:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

17. What is the appropriate age of your current and any of your last four protégés?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Same age</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Younger</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

18. What is the gender of your current and any of your last four protégés?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Female</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
19. Is it important to you that your protégé is the same gender as you?

O Yes  O No

19a. Please explain: __________________________________________________________
________________________________________________________________________
________________________________________________________________________

20. Is your current and any of your last four protégés the same ethnicity/race as you? Please check all that apply.

Protégé(s):

1 2 3 4

Same  O O O O
Different  O O O O

21. Is it important to you that your protégé is the same ethnicity/race as you?

O Yes  O No

21a. Please explain: __________________________________________________________
________________________________________________________________________
________________________________________________________________________

22. Do you feel it is important to have protégés during health care training?

O Yes  O No

22a. If your response to item #22 is “No”, please explain: ____________________________
________________________________________________________________________
________________________________________________________________________

23. Do you feel it is important to have one or more protégé during health care training?

O One  O More  O None

23a. Please explain: __________________________________________________________
________________________________________________________________________
________________________________________________________________________

24. If you feel it is important to have one or more protégé during health care training, would you like to have formal protégé, informal protégé, or a combination of both?

O Formal protégé(s)  O Informal protégé(s)  O Combination of both
25. If you feel it is important to have one or more protégé during health care training, which of these career development functions would you say best describe why you would like to have protégés? Please check all that apply.

- O I want to sponsor my students
- O I want to expose my students to things that they need to know
- O I want to coach my students
- O I want to give my students important assignments
- O I want to coordinate the professional goals of my students
- O I want to stimulate the interest of my students to learn more
- O I want to convey the norms of the health care profession to my students
- O I want to develop my students’ professional development skills
- O I want to give my students career development advice
- O I want to give my students valuable career development information
- O Other

25a. If “Other”, please indicate: _____________________________________________
_________________________________________________________________________
_________________________________________________________________________

26. If you feel it is important to have one or more protégé during health care training, which of these psychosocial development functions would you say best describe why you would like to have protégés? Please check all that apply.

- O I want to listen to my students
- O I want to take personal interest in my students
- O I want to affirm my students
- O I want to counsel my students
- O I want to accept my students
- O I want to be friends with my students
- O I want to motivate my students
- O I want my students to gain my confidence
- O I want my students to feel comfortable with me
- O I want to talk to my students
- O I want to spend time with my students
- O Other

26a. If “Other”, please indicate: _____________________________________________
_________________________________________________________________________
_________________________________________________________________________

NOTE: If you do not have a protégé while training at the New York Chiropractic College, you may STOP here now and return your survey in the enclosed envelope to Ms. Dawn Stedge at the Office for Chiropractic Education. Thank you.
The remainder of this survey is intended for ONLY those individuals who have protégés while training at the New York Chiropractic College. Please proceed. Thank you.

27. Did you meet your current and any of your last four protégés formally or informally?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formally</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Informally</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

28. If you met your current and any of your last four protégés formally, was your protégé assigned to you?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>No</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

29. If you met your current and any of your last four protégés informally, who initiated the meeting?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My protégé(s)</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My self</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

29a. Please explain briefly for each protégé relationship:

<table>
<thead>
<tr>
<th>Protégé(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ________________________________</td>
</tr>
<tr>
<td>2 ________________________________</td>
</tr>
<tr>
<td>3 ________________________________</td>
</tr>
<tr>
<td>4 ________________________________</td>
</tr>
</tbody>
</table>

30. If you have more than one protégé, which of the following will best describe why you have more than one protégé while training at NYCC? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship did not work out</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I was unable to meet my protégé’s needs</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My protégé’s career/psychosocial needs changed</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I was uncomfortable with my protégé</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
My protégé demanded too much from me  O  O  O  O  O
I was too busy  O  O  O  O  O
We went our own ways  O  O  O  O  O
My protégé left NYCC  O  O  O  O  O
My protégé’s career needs are met by a variety of professionals  O  O  O  O  O
Other  O  O  O  O  O

30a. If “Other”, please explain: _____________________________________________
_________________________________________________________________
_________________________________________________________________

31. For how long have you known your current and any of your last four protégés? Please check all that apply.

Protégé(s):  1  2  3  4
One to three months  O  O  O  O  O
Three to six months  O  O  O  O  O
Six to nine months  O  O  O  O  O
Nine months to one year  O  O  O  O  O
One year or more  O  O  O  O  O

32. How often do you meet with your current and any of your last four protégés?

Protégé(s):  1  2  3  4
Once a week  O  O  O  O  O
Once every other week  O  O  O  O  O
Once a month  O  O  O  O  O
Once every other month  O  O  O  O  O
Once every trimester  O  O  O  O  O
As often as needed  O  O  O  O  O
Other  O  O  O  O  O

32a. If “Other”, please explain: _____________________________________________
_________________________________________________________________
_________________________________________________________________

33. On the average, how much time do you spend with your current and any of your last four protégés when you meet?

Protégé(s):  1  2  3  4
0 to five minutes  O  O  O  O  O
Less than fifteen minutes  O  O  O  O  O
34. At which stage of the mentoring relationship would you say you are in with your current and any of your last four protégés? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship just started</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is increasing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is decreasing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a positive way because my protégé’s career needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a negative way because my protégé’s career needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a positive way because my protégé’s psychosocial needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is changing in a negative way because my protégé’s psychosocial needs are changing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My protégé is like peer or friend in this relationship</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The relationship is ending</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

34a. If “Other”, please explain: ___________________________________________________
____________________________________________________________________
____________________________________________________________________

35. If you have ended a mentoring relationship with one or more of your protégés, which of the following would best describe why your mentoring relationship ended? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship did not work out</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I could not meet the needs of my protégé</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The career needs of my protégé changed</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The psychosocial needs of my protégé changed</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I was uncomfortable with my protégé</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My protégé demanded too much from me</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My protégé was too busy</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>We went our own ways</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
I was too busy                           O  O  O  O  O
My protégé left NYCC/graduated        O  O  O  O  O
Other                                  O  O  O  O  O

35a. If “Other”, please explain: ________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

36. Which of these career development functions would you say best describe how you have helped your current and any of your last four protégés? Please check all that apply.

Protégé(s):

1 2 3 4

I sponsor my protégé                      O  O  O  O
I expose my protégé to things he/she need to know   O  O  O  O
I coach my protégé when he/she needs coaching    O  O  O  O
I give my protégé opportunities to develop his/her skills O  O  O  O
I look out for my protégé by giving him/her advice  O  O  O  O
Other                                        O  O  O  O

36a. If “Other”, please explain: ________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

37. Which of these psychosocial development functions would you say best describe why you are able to help your current and any of your last four protégés? Please check all that apply.

Protégé(s):

1 2 3 4

I admire my protégé                       O  O  O  O
I accept my protégé for who he/she is     O  O  O  O
I affirm my protégé                       O  O  O  O
I counsel my protégé                      O  O  O  O
My protégé is like my friend              O  O  O  O
Other                                       O  O  O  O

37a. If “Other”, please explain: ________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
38. Would you say that you are satisfied with the quality of mentorship that you give to your current and any of your last four protégé?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>No</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Somewhat</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

38a. Please explain: __________________________________________________________
_________________________________________________________________
_________________________________________________________________

39. How do you communicate with your current and any of your last four protégé? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to face</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>On the phone</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Through others</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Through e-mail</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Inter-office memo</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

39a. If “Other”, please explain: ___________________________________________________
_________________________________________________________________
_________________________________________________________________

40. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through face-to-face contact? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

40a. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through telephone contact? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>
40b. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through others? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

40c. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through e-mail? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

40d. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through inter-office memo? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

________________________________________________________________________________
Part II:

Please respond to as many of these items as they relate to your current and any of your last four protégés at NYCC.

Please read each of the following statements carefully. For each, please rate your level of Agreement on the five-point scale presented below. Please fill in SA if you strongly agree with the statement, A if you agree with the statement, D if you disagree with the statement, SD if you strongly disagree with the statement, and NA if you don’t know or if the question is not applicable. Please mark the ONE best response to each statement below.

41. I take personal interest in my protégé’s career.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA

42. I advise my protégé.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA

43. I coach my protégé on special projects.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA

44. I inform my protégé of up-coming learning opportunities to increase his/her skills.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA

45. I listen to my protégé’s personal problems.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA

46. I help my protégé coordinate his/her professional goals.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA

47. I accept my protégé for who he/she is.
   - O Strongly agree
   - O Agree
   - O Disagree
   - O Strongly disagree
   - O Don’t know/NA
48. I stimulate my protégé’s interest to learn more.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

49. I am able to motivate my protégé.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

50. My protégé has gained my confidence.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

51. I am able to convey the norms of the profession of health care to my protégé.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

52. My protégé is my friend.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

53. I am effective in communicating with my protégé.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

54. I spend considerable time with my protégé.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

55. I assure my protégé when he/she has doubts.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA

56. I feel comfortable with my protégé.
   O Strongly agree   O Agree   Disagree   O Strongly disagree
   O Don’t know/NA
57. Is there anything else that you would like to tell us about your experience with protégés at NYCC? Please write down your comments in the space below.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

58. Would you like to participate in a follow-up, forty-five minutes, in-depth personal interview for this study?

O Yes          O No

58a. If your response to item #58 is “Yes”, please complete the accompanying form by leaving your initials on both your survey and the form for matching. Also, indicate on the form the best way to contact you to arrange for a forty-five minute long personal interview. After completing the form and the survey, please put both form and survey in the accompanying envelope (included in this package), and drop the envelope off to Ms. Dawn Stedge at the Office of Chiropractic Education. Thank you.

58b. If your response to item #58 is “No”, please complete the accompanying form to indicate your interest in receiving a summary of the study result and where the result should be sent to you. After completing the form and the survey, please put both form and survey in the accompanying envelope (included in this package), and drop the envelope off to Ms. Dawn Stedge at the Office of Chiropractic Education. Thank you.

THANK YOU FOR COMPLETING THE SURVEY!
Appendix C: Health Care Student Pre-test Cover Letter

Date:

Dear Health Care Student:

I am seeking your cooperation in a dissertation research project designed to describe and explore the perceptions held by health care students toward mentoring, and how this perception may influence the formation of mentoring and mentoring relationships in a health care training setting. This project will attempt to determine whether mentoring is occurring, what the perceived benefits are for health care students and health care faculty.

As a health care student at New York Chiropractic College, you have been selected to participate in pre-testing the Health Care Student Survey Instrument for this study. Your feedback will be used, with that of others, to draft a final survey instrument for this study. The survey will take you thirty-five minutes to complete and your experience in completing this survey will be a valuable guide towards finding and correcting any problems with the survey instrument.

After completing the survey, please tell us about your experience in responding to the items on the survey. Please feel free to raise any questions or concerns that you might have with any part of the survey. The following questions are provided as a general guide to the more specific questions or concerns that you might have about the survey instrument. Please feel free to write your comments on the survey and return the survey and your comments to Ms. Dawn Stedge at the Office of Chiropractic Education after you finish.

1. In completing this survey, do you feel frustrated or challenged beyond what you might expect when completing a survey?
2. How do you feel taking this survey?
3. Do you feel good, sad, mixed, or indifferent in completing the survey?
4. Were the items hard for you to understand or respond to?
5. Were the items easy to understand or respond to?
6. Were the questions clear or confusing?
7. Do you feel that the survey items were appropriate and spoke to “your” mentoring or no-mentoring experience?
8. Is thirty-five minutes realistic, reasonable and acceptable time to complete the survey?
9. Which questions or items on the survey might you remove or change?
10. Which questions or items might you want to add?

Thank you for your cooperation.
Appendix D: Health Care Faculty Pre-test Cover Letter

Date:

Dear Health Care Faculty:

I am seeking your cooperation in a dissertation research project designed to describe and explore the perceptions held by health care faculty toward mentoring, and how this perception may influence the formation of mentoring and mentoring relationships in a health care training setting. This project will attempt to determine whether mentoring is occurring, what the perceived benefits are for health care students and health care faculty.

As a health care faculty at New York Chiropractic College, you have been selected to participate in pre-testing the Health Care Faculty Survey Instrument for this study. Your feedback will be used, with that of others, to draft a final survey instrument for this study. The survey will take you thirty-five minutes to complete and your experience in completing this survey will be a valuable guide towards finding and correcting any problems with the survey instrument.

After completing the survey, please tell us about your experience in responding to the items on the survey. Please feel free to raise any questions or concerns that you might have with any part of the survey. The following questions are provided as a general guide to the more specific questions or concerns that you might have about the survey instrument. Please feel free to write your comments on the survey and return the survey and your comments to Ms. Dawn Stedge at the Office of Chiropractic Education after you finish.

1. In completing this survey, do you feel frustrated or challenged beyond what you might expect when completing a survey?
2. How do you feel taking this survey?
3. Do you feel good, sad, mixed, or indifferent in completing the survey?
4. Were the items hard for you to understand or respond to?
5. Were the items easy to understand or respond to?
6. Were the questions clear or confusing?
7. Do you feel that the survey items were appropriate and spoke to “your” mentoring or no-mentoring experience?
8. Is thirty-five minutes realistic, reasonable and acceptable time to complete the survey?
9. Which questions or items on the survey might you remove or change?
10. Which questions or items might you want to add?

Thank you for your cooperation.
Appendix E: Health Care Student Interview Guide

We are interested in health care students who have experienced mentoring and mentoring relationships while in training at the New York Chiropractic College, Seneca Falls, New York. Your responses will help us determine the proper place for mentoring and mentoring relationships in health care training setting for those entering health care school. Your responses will not be shared with other persons. Please respond to the questions as best as you can. Thank you.

1. Start by tracing your history and interest in the health care field. (i.e., how did you become interested in this health care profession?)
2. What or who inspired you to have this interest?
3. What roles did others play in the development of your career interest?
4. Was it important to you, that “others” where there to assist you?
5. Why did you need other people’s assistance in your career development?
6. Would you consider those who have assisted you as your mentor(s)?
7. Do you have people or individuals here at the New York Chiropractic College who have helped you meet your career development needs?
8. What did s/he (they) do for you that make you feel that s/he (they) has (have) helped you meet your career or professional development needs?
9. Do you have people or individuals here at the New York Chiropractic College who have helped you meet your psychosocial development needs?
10. What did s/he (they) do for you that make you feel that s/he (they) has (have) helped you meet your personal or psychosocial development needs?
11. Would you consider the (those) individual(s) who has (have) helped you meet your career and psychosocial developments needs, here at the New York Chiropractic College, as mentor(s)?
12. Do you mind identifying this (one) individual, here at the New York Chiropractic College, who has helped you meet your professional and psychosocial development needs?
13. Would you mind if we contact and interview this individual about his/ her mentoring experience?

Thank you for your time and assistance with this interview.
Appendix F: Health Care Faculty Interview Guide

We are interested in members of the health care faculty who have experienced mentoring and mentoring relationships while providing health care training at the New York Chiropractic College, Seneca Falls, New York. Your responses will help us determine the proper place for mentoring and mentoring relationships in health care training setting for those entering health care school. Your responses will not be shared with other persons. Please respond to the questions as best as you can. Thank you.

Note: A student has identified you as an individual whose influence has made a difference in his/her health care training experience, at the New York Chiropractic College.

1. Do you accept this designation by a student that you have made a difference in his/her health care training experience?
2. How do you feel to be identified by a student that you have made a difference in his/her career training experience?
3. As a member of the health care faculty, do you feel it is important to support health care student’s career and psychosocial development needs?
4. Why do you think it is important for health care faculty to support health care student’s career and psychosocial development needs?
5. What or who inspired you to want to help health care students meet their career and psychosocial development needs?
6. Is it important to you that health care students look up to you as someone who can make a difference in their career and psychosocial development needs?
7. Did you receive additional training in order for you to be effective in meeting health care student’s career and psychosocial development needs?
8. What combination of skills do you possess that make you feel effective in meeting health care student’s career and psychosocial development needs?
9. Do you feel that having a protégé(s) in health care training is an important responsibility that members of the health care faculty should assume?
10. Do you feel that entering into mentoring and mentoring relationships with health care students is important if health care faculty members want to transfer professional and attitudinal skills to health care students?
11. Is there anything else that you might want to share about mentoring and mentoring relationships in a health care setting?

Thank you for your time and assistance with this interview.
Appendix G: Health Care Student Cover Letter

Date:

Dear Health Care Student:

I am seeking your cooperation in a dissertation research project designed to describe and explore the perceptions held by health care students toward mentoring, and how this perception may influence the formation of mentoring and mentoring relationships in a health care training setting. This project will attempt to determine whether mentoring is occurring between health care students and health care faculty and if it is occurring, what the perceived benefits are for health care students and health care faculty.

You have been selected to participate in this study because you are a member of the health care student body at the New York Chiropractic College. Your participation in this study will enable us to determine the proper place for mentoring and mentoring relationships in a health care training setting, and will provide us with a useful guide toward future work on the planning of health care training services for individuals entering health care school.

All questionnaire responses will be held confidential. Enclosed is a pre-addressed reply envelope for your convenience in returning the questionnaire. Also included, is a postcard for you to indicate if you will like to participate in a forty-five minutes personal interview for this study and how to contact you. If you will like to participate in the interview section of this study, please initial your questionnaire and your postcard for matching purposes. Finally, indicate on the postcard whether you request a summary of the study result, and mail both the questionnaire and postcard in the enclosed pre-addressed envelope back to the investigator by (date).

Based on prior research, this questionnaire should take approximately thirty-five minutes to complete. Please feel free to contact me if you have any questions regarding this project. Thank you for your time and cooperation with this project.

Sincerely,

Hussain B. Ahmed
Telephone Number: (716)-436-3637
E-mail Address: Hussainbahmed@yahoo.com
Appendix H: Health Care Faculty Cover Letter

Date:

Dear Health Care Faculty:

I am seeking your cooperation in a dissertation research project designed to describe and explore the perceptions held by health care faculty toward mentoring, and how this perception may influence the formation of mentoring and mentoring relationships in a health care training setting. This project will attempt to determine whether mentoring is occurring between health care students and health care faculty and if it is occurring, what the perceived benefits are for health care students and health care faculty.

You have been selected to participate in this study because you are a member of faculty at the New York Chiropractic College. Your participation in this study will enable us to determine the proper place for mentoring and mentoring relationships in a health care training setting, and will provide us with a useful guide toward future work on the planning of health care training services for individuals entering health care school.

All questionnaire responses will be held confidential. Enclosed is a pre-addressed reply envelope for your convenience in returning the questionnaire. Also included, is a postcard for you to indicate whether you request a summary of the study results. After completing your questionnaire and postcard, please mail both the questionnaire and postcard in the enclosed pre-addressed envelope back to the investigator by (date).

Based on prior research, this questionnaire should take approximately thirty-five minutes to complete. Please feel free to contact me if you have any questions regarding this project. Thank you for your time and cooperation with this project.

Sincerely,

Hussain B. Ahmed
Telephone Number: (716)-436-3637
E-mail Address: Hussainbahmed@yahoo.com
Appendix I: Memo from Dr Bob Ruddy to Hussain B. Ahmed: “Mentoring at NYCC”

June 21, 2001

Dear Hussain:

The mentoring process at the NYCC starts in the seventh trimester where a new intern is assigned both a clinical faculty member to report to and also an eighth trimester intern to help them learn the ropes. In eighth through tenth trimester, the student participates in the outpatient clinics treating the public. Here they are assigned a faculty mentor and a tenth trimester student mentor to help them grow clinically through hands on work with the mentors and the patients. This system helps the student intern grow clinically throughout their clinical rounds to become the best young doctor the can be.

Dr. Ruddy
Appendix J: Summary of Faculty Demographic Characteristics

Faculty Summary
Sample Size: 96

**Gender**
Male: 43  
Female: 51  
No Response: 2

**Ethnicity**
African American: 0  
European American: 61  
Hispanic American: 1  
Mainland Puerto Rico: 0  
Mexican American: 0  
Native American: 7  
Other: 23  
No Response: 4

**Terminal Degree**
D.C: 41  
MD: 0  
PhD: 4  
D.C/PhD: 1  
MD/PhD: 1  
Sc.D: 2  
Ed.D: 0  
JD: 1  
M. Sc: 5  
M. Ed: 3  
M. A: 1  
Other: 18  
No Response: 19

**Attended a Health Care Training School**
Yes 47  
No 49
Appendix K: Summary of Student Demographic Characteristics

Student Summary

<table>
<thead>
<tr>
<th>N=153</th>
<th>Tri 1</th>
<th>Tri 2</th>
<th>Tri 3</th>
<th>Tri 4</th>
<th>Tri 5</th>
<th>Tri 6</th>
<th>Tri 7</th>
<th>Tri 8</th>
<th>Tri 9</th>
<th>Tri 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>88</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>35</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>No Response</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N=</strong></td>
<td>153</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>11</td>
<td>1</td>
<td>67</td>
<td>23</td>
</tr>
</tbody>
</table>

| **Age**       |       |       |       |       |       |       |       |       |       |        |        |
| 0-25          | 59    | 0     | 4     | 1     | 1     | 9     | 4     | 0     | 31    | 5      | 4      |
| 25-30         | 68    | 0     | 1     | 0     | 1     | 0     | 1     | 1     | 30    | 10     | 24     |
| 30-35         | 17    | 0     | 0     | 0     | 2     | 0     | 3     | 0     | 4     | 7      | 1      |
| 35-40         | 7     | 0     | 1     | 0     | 0     | 2     | 0     | 2     | 0     | 1      | 1      |
| 40-45         | 2     | 0     | 0     | 0     | 1     | 0     | 1     | 0     | 0     | 0      | 0      |
| 50-55         | 0     |       |       |       |       |       |       |       |       |        |        |
| Over 50yrs    | 0     |       |       |       |       |       |       |       |       |        |        |
| No Response   | 0     |       |       |       |       |       |       |       |       |        |        |
| **N=**        | 153   | 0     | 6     | 1     | 5     | 9     | 11    | 1     | 67    | 23     | 30     |

| **Ethnicity** |       |       |       |       |       |       |       |       |       |        |        |
| African American | 3    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 0      | 2      |
| European American | 87   | 0     | 4     | 0     | 2     | 5     | 6     | 1     | 42    | 12     | 15     |
| Hispanic American | 6    | 0     | 0     | 0     | 0     | 0     | 1     | 0     | 2     | 1      | 2      |
| Mainland Puerto Rico | 1    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 1      |
| Mexican American | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |
| Native American | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |
| Other          | 50    | 0     | 2     | 0     | 3     | 4     | 4     | 0     | 20    | 9      | 8      |
| No Response    | 6     | 0     | 0     | 1     | 0     | 0     | 0     | 0     | 2     | 1      | 2      |
| **N=**         | 153   | 0     | 6     | 1     | 5     | 9     | 11    | 1     | 67    | 23     | 30     |
Appendix L: Summary of Health Care Student Survey (N=153)

Mentoring Student Results:

1. How would you like to be identified?

- African American............................... 2.0%
- European American............................. 56.9%
- Hispanic American.............................. 3.9%
- Mainland Puerto Rican........................ 0.7%
- Mexican American.............................. 0.0%
- Native American............................... 0.0%
- Other........................................... 36.6%

2. Please check your appropriate age:

- 0 -25yrs........................................... 39.9%
- 25-30yrs.......................................... 41.8%
- 30-35yrs.......................................... 11.1%
- 35-40yrs.......................................... 5.9%
- 40-45yrs.......................................... 1.3%
- 45-50yrs.......................................... 0.0%
- Over 50yrs....................................... 0.0%

3. Gender:

- Female........................................... 43.8%
- Male............................................. 56.2%

4. Marital Status:

- Married.......................................... 13.7%
- Single........................................... 81.7%
- Separated....................................... 0.0%
- Divorced....................................... 3.3%
- Widowed........................................ 1.3%

5. What trimester of chiropractic training are you in?

- 1st Trimester................................. 0.0%
- 2nd Trimester.................................. 3.9%
- 3rd Trimester................................. 0.7%
- 4th Trimester................................. 3.3%
- 5th Trimester................................. 5.9%
- 6th Trimester................................. 7.2%
- 7th Trimester................................. 0.7%
- 8th Trimester................................. 43.8%
- 9th Trimester................................. 15.0%
6. Expected year of graduation from the New York Chiropractic College? (Please indicate):
   - 2003: 78.4%
   - 2004: 13.7%
   - 2005: 7.2%
   - 2006: 0.0%
   - 2007: 0.0%
   - 2008: 0.7%
   - 2009: 0.0%
   - 2010: 0.0%

7. Do you plan to practice chiropractic after you graduate from New York Chiropractic College?
   - Yes: 100%
   - No: 0.0%

8. Do you plan to obtain postgraduate training after you graduate from New York Chiropractic College?
   - Yes: 66.7%
   - No: 31.4%

8a. if your response to item #8 is “yes”, do you plan to do research?
   - Yes: 10.5%
   - No: 62.1%

8b. if your response to item #8 is “No”, do you plan to teach?
   - Yes: 21.6%
   - No: 55.6%

8c. if your response to item #8b is “No”, please elaborate on your plan:
   - 51.6%

9. Have you ever had a mentor?
   - Yes: 58.8%
   - No: 40.5%

10. How many mentors have you had since coming to the New York Chiropractic College (NYCC)?
    - 1: 27.5%
    - 2: 20.9%
    - 3: 7.2%
    - 4: 2.6%
    - Over 4 please specify: Current: 2.0%
    - Over 4, please specify: Past: 0.7%
11. Do you currently have a mentor?
   Yes........................................................................................................52.3%
   No........................................................................................................6.5%

11a. How many mentors do you currently have?
   1................................................................. 39.9%
   2................................................................. 12.4%
   3................................................................. 2.6%
   4.................................................................................2.0%

12. Tell us about your current or last four mentor(s). Please check all that apply.
   Mentor(s):
   
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone at NYCC</td>
<td>43.8%</td>
<td>20.9%</td>
<td>5.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>35.8%</td>
<td>17.6%</td>
<td>3.9%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>15.0%</td>
<td>7.2%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Family member</td>
<td>5.2%</td>
<td>2.6%</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>5.9%</td>
<td>3.9%</td>
<td>1.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>0.7%</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Friend/ peer</td>
<td>6.5%</td>
<td>7.2%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>6.5%</td>
<td>5.9%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>2.6%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>6.5%</td>
<td>1.3%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Relationship still exist</td>
<td>5.2%</td>
<td>1.3%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Relationship has ended</td>
<td>2.0%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

13. If your current or last four mentors are not based at NYCC, please tell us where your mentors are based outside the NYCC.
   
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentor(s):</td>
<td>17.0%</td>
<td>7.2%</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Base (d) at City:</td>
<td>17.0%</td>
<td>5.9%</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Base (d) at State:</td>
<td>17.6%</td>
<td>6.5%</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

14. Is your mentor in the health care profession?
   Yes........................................................................................................52.9%
   No........................................................................................................3.3%

15. Is your current or last four mentors in the same specialty as you?
   Mentor(s):  
   
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>43.8%</td>
<td>24.8%</td>
<td>9.8%</td>
<td>3.9%</td>
</tr>
<tr>
<td>No</td>
<td>9.2%</td>
<td>4.6%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>
16. What is the appropriate age of your current or last four mentors?
   Mentor(s):
   Older: 1   2   3   4
   Older: 49.7% 28.1% 9.8% 5.2%
   Same age: 3.9% 1.3% 0.0% 0.0%
   Younger: 1.3% 1.3% 0.0% 0.0%

17. What is the gender of your current or last four mentors?
   Mentor(s):
   Male: 1   2   3   4
   Male: 35.3% 24.2% 4.6% 3.9%
   Female: 21.6% 7.8% 5.2% 0.7%

18. Is it important to you that your mentor is the same gender as you?
   Yes: ................................................................. 4.6%
   No: ................................................................. 54.2%

18a. If your response to item #18 is “No”, please explain: 46.4%

18b. If your response to item #18 is “Yes”, please explain: 4.6%

19. Is your current or last four mentors the same ethnicity/race as you? Please check all that apply.
   Mentor(s):
   Yes: 1   2   3   4
   Yes: 38.6% 26.8% 7.8% 3.3%
   No: 15.0% 4.6% 1.3% 0.7%

20. Is it important to you that your mentor is the same ethnicity/race as you?
   Yes: ................................................................. 2.0%
   No: ................................................................. 56.2%

20a. If your response is “Yes” to item #20, please explain: 7.8%

20b. If your response is “No” to item #20, please explain: 40.5%

21. Do you feel it is important to have a mentor during health care training?
   Yes: ................................................................. 90.2%
   No: ................................................................. 7.2%

21a. If your response to item #21 is “No”, please explain: 4.6%

22. Would you participate in mentoring if made available to you at NYCC?
   Yes: ................................................................. 79.1%
No…………………………………………………………………………5.9%
Maybe……………………………………………………………………13.7%

22a. If your response to item #22 is “No” or “Maybe”, please explain:
15.0%

23. If you feel it is important to have a mentor during health care training, would you like to have formal mentoring, informal mentoring or combination of both?
Formal mentoring……………………………………………………...7.8%
Informal mentoring……………………………………………………17.6%
Combination of both……………………………………………………71.9%

24. If you feel it is important to have a mentor during health care training, which of these career development functions would you say best describe why you would like to have a mentor? Please check all that apply. (Note: A check indicates a “Yes”).
I want to be sponsored…………………………………………………7.8%
I want to be exposed to the things I need to know……………………..83.0%
I want to be coached……………………………………………………41.2%
I want to get important assignments……………………………………11.8%
I want my professional goals to be coordinated……………………….48.4%
I want to be stimulated to learn more…………………………………..62.7%
I want the norms of the health care profession to be conveyed to me…49.4%
I want to develop my professional development skills……………………81.7%
I want career development advice………………………………………73.2%
I want valuable career development information……………………….65.4%
Other……………………………………………………………………3.9%

24a. If your response to item #24 is “Other”, please indicate:
3.9%

25. If you feel it is important to have a mentor during health care training, which of these psychosocial development functions would you say best describe why you would like to have a mentor? Please check all that apply. (Note: A check indicates a “Yes”).
I want someone to listen to me………………………………………….25.5%
I want someone to take personal interest in me……………………….37.3%
I want someone to affirm me…………………………………………..28.1%
I want someone to counsel me………………………………………….47.7%
I want someone to accept me………………………………………….8.5%
I want to make friends with someone…………………………………..11.8%
I want someone to motivate me………………………………………..52.9%
I want someone to gain my confidence………………………………..28.1%
I want someone to talk to me………………………………………….18.3%
I want someone to be comfortable with me…………………………….17.0%
I want someone to spend time with me……………………………….9.2%
Other……………………………………………………………………11.8%
25a. If your response to item #25 is “Other”, please indicate: 13.7%

26. How did you meet your current or last four mentors?
   Mentor(s):
   |        | 1    | 2    | 3    | 4    |
   | Formally| 36.6%| 15.0%| 5.9% | 3.3% |
   | Informally| 16.3%| 12.4%| 3.3% | 0.7% |

27. If you met your current or last four mentors formally, was your mentor assigned to you?
   Mentor(s):
   |        | 1    | 2    | 3    | 4    |
   | Yes     | 34.0%| 12.4%| 3.3% | 2.0% |
   | No      | 13.7%| 11.8%| 4.6% | 1.3% |

28. If you met your current or last four mentors informally, who initiated the meeting?
   Mentor(s):
   |        | 1    | 2    | 3    | 4    |
   | My mentor(s) | 5.9%| 4.6% | 0.0% | 0.0% |
   | Myself      | 15.0%| 7.2% | 2.0% | 2.0% |
   | I was introduced | 9.8%| 4.6% | 0.0% | 0.0% |
   | Other       | 4.6% | 0.7% | 1.3% | 0.0% |

28a. If your response to item #28 is “Other”, please explain: 5.9%

29. For how long have you known your current or last four mentors?
   Mentor(s):
   |        | 1    | 2    | 3    | 4    |
   | One to three months | 9.2%| 3.9% | 1.3% | 0.7% |
   | Three to six months | 13.1%| 6.5% | 1.3% | 0.0% |
   | Six to nine months | 7.8% | 5.2% | 1.3% | 0.7% |
   | Nine months to one year | 2.6%| 3.3% | 0.0% | 0.0% |
   | One year or more | 17.0%| 11.8%| 5.2% | 2.0% |

30. If you have more than one mentor, which of the following will best describe why you have more than one mentor while in training at the NYCC? Please check all that apply.
   Mentor(s):
   |        | 1    | 2    | 3    | 4    |
   | The relationship did not work out | 0.7%| 0.0% | 0.0% | 0.0% |
   | My needs where not being met by my mentor | 0.7%| 0.7% | 0.0% | 0.0% |
   | My career/psychosocial needs changed | 3.9%| 0.0% | 0.0% | 0.0% |
   | I was uncomfortable with my mentor | 0.7%| 0.7% | 0.0% | 0.0% |
   | My mentor demanded too much from me | 0.0%| 1.3% | 0.0% | 0.0% |
   | My mentor was not available enough | 0.7%| 0.0% | 0.0% | 0.0% |
   | We went our own ways | 4.6%| 0.7% | 0.0% | 0.0% |
   | My mentor changed departments | 0.7%| 0.0% | 0.0% | 0.0% |
   | My mentor left NYCC | 0.7%| 0.7% | 0.0% | 0.0% |
   | My career needs are met by a variety of professionals |
30a. If your response to item #30 is “Other”, please explain: 12.4%

31. How often do you meet with your current or last four mentors?

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a week</td>
<td>14.4%</td>
<td>4.6%</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Once every other week</td>
<td>11.8%</td>
<td>5.9%</td>
<td>1.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Once a month</td>
<td>14.4%</td>
<td>5.9%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Once every other month</td>
<td>2.0%</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Once every trimester</td>
<td>3.3%</td>
<td>2.6%</td>
<td>2.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>As often as needed</td>
<td>10.5%</td>
<td>7.8%</td>
<td>2.6%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other</td>
<td>2.0%</td>
<td>1.3%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

31a. If your response to item #31 is “Other”, Please explain: 3.3%

32. On the average, how much time do you spend with your current or last four mentors when you meet?

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to five minutes</td>
<td>2.6%</td>
<td>2.0%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Less than fifteen minutes</td>
<td>26.8%</td>
<td>12.4%</td>
<td>2.6%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Less than thirty minutes</td>
<td>11.8%</td>
<td>5.9%</td>
<td>2.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>One hour</td>
<td>3.9%</td>
<td>2.0%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>One hour or more</td>
<td>3.3%</td>
<td>3.3%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>As much time as needed</td>
<td>5.9%</td>
<td>3.9%</td>
<td>2.6%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

33. At which stage of the mentoring relationship would you say you are in with your current or last four mentors? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship has just started</td>
<td>13.1%</td>
<td>6.5%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>The relationship is increasing</td>
<td>9.8%</td>
<td>5.9%</td>
<td>1.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>The relationship is changing in a positive way because my career needs are changing</td>
<td>15.0%</td>
<td>8.5%</td>
<td>2.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>The relationship is changing in a negative way because my career needs are changing</td>
<td>1.3%</td>
<td>2.6%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>The relationship is changing in a positive way because my psychosocial needs are changing</td>
<td>4.6%</td>
<td>2.6%</td>
<td>1.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>The relationship is changing in a negative way because my psychosocial needs are changing</td>
<td>0.7%</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My mentor is like a peer or friend in this relationship</td>
<td>13.1%</td>
<td>9.8%</td>
<td>2.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Other</td>
<td>7.8%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

33a. If your response to item #33 is “Other”, please explain: 9.8%
34. Which of these career development functions would you say best describe why you feel that your current or last four mentors were helpful to you? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mentor sponsor me</td>
<td>4.6%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My mentor exposes me to things I need to know</td>
<td>29.4%</td>
<td>18.3%</td>
<td>6.5%</td>
<td>2.0%</td>
</tr>
<tr>
<td>My mentor coach me when I need coaching</td>
<td>20.9%</td>
<td>10.5%</td>
<td>3.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>My mentor provide me with opportunities to develop my skills</td>
<td>19.6%</td>
<td>9.2%</td>
<td>2.6%</td>
<td>2.6%</td>
</tr>
<tr>
<td>My mentor looks out for me by giving me advice</td>
<td>28.1%</td>
<td>13.7%</td>
<td>4.6%</td>
<td>1.3%</td>
</tr>
<tr>
<td>My mentor share valuable career development information with me</td>
<td>19.0%</td>
<td>11.1%</td>
<td>3.3%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other</td>
<td>2.6%</td>
<td>0.0%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

34a. If your response to item #34 is “Other”, Please explain: 3.9%

35. Which of these psychosocial development functions would you say best describe why you feel that your current or last four mentors were helpful to you? Please check all that apply.

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mentor advise me</td>
<td>39.2%</td>
<td>17.6%</td>
<td>5.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>My mentor accept me for who I am</td>
<td>13.7%</td>
<td>6.5%</td>
<td>3.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>My mentor affirm me</td>
<td>13.7%</td>
<td>5.2%</td>
<td>2.6%</td>
<td>2.0%</td>
</tr>
<tr>
<td>My mentor counsel me</td>
<td>13.1%</td>
<td>4.6%</td>
<td>1.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>My mentor is like my friend</td>
<td>17.6%</td>
<td>8.5%</td>
<td>5.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Other</td>
<td>2.0%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

35a. If your response to item #35 is “Other”, Please explain: 2.6%

36. In your relationship with your current or last four mentors, would you say that you are satisfied with the mentoring you have received?

<table>
<thead>
<tr>
<th>Mentor(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>37.9%</td>
<td>20.3%</td>
<td>7.8%</td>
<td>3.3%</td>
</tr>
<tr>
<td>No</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Somewhat</td>
<td>9.2%</td>
<td>3.9%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

37. Would you recommend formal mentoring, informal mentoring, combination of both, or no mentoring for other health care students at NYCC?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal mentoring</td>
<td>5.9%</td>
</tr>
<tr>
<td>Informal mentoring</td>
<td>7.8%</td>
</tr>
<tr>
<td>Combination of both</td>
<td>41.8%</td>
</tr>
<tr>
<td>No mentoring</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
37a. Please explain below:
   19.0%

38. How do you communicate with your current or last four mentors? Please check all that apply.

   Mentor(s): 1 2 3 4
   Face to face 49.7% 24.8% 7.8% 3.9%
   On the phone 10.5% 6.5% 0.7% 0.0%
   Through others 0.0% 0.0% 0.7% 0.0%
   Through e-mail 11.1% 5.9% 2.0% 0.7%
   Through inter-office memo 0.7% 0.7% 0.0% 0.0%
   Other 0.0% 0.7% 0.0% 0.0%

38a. If your response to item #38 is “Other”, please indicate:
   1.3%

39. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through face-to-face contact? Please check all that apply.

   Mentor(s): 1 2 3 4
   0 to 20% 7.8% 2.6% 0.7% 0.0%
   20 to 40% 2.6% 1.3% 0.7% 0.7%
   40 to 60% 2.6% 2.6% 0.7% 0.0%
   60 to 80% 3.9% 2.6% 2.0% 1.3%
   80 to 100% 34.6% 16.3% 3.9% 2.0%

39a. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through telephone contact? Please check all that apply.

   Mentor(s): 1 2 3 4
   0 to 20% 42.5% 20.9% 7.8% 3.9%
   20 to 40% 3.9% 5.2% 0.0% 0.0%
   40 to 60% 0.7% 0.0% 0.0% 0.0%
   60 to 80% 0.7% 0.0% 0.0% 0.0%
   80 to 100% 0.7% 0.0% 0.0% 0.0%

39b. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through others? Please check all that apply.

   Mentor(s): 1 2 3 4
   0 to 20% 43.8% 23.5% 6.5% 3.3%
   20 to 40% 0.7% 0.7% 0.0% 0.0%
   40 to 60% 0.0% 0.0% 0.7% 0.0%
   60 to 80% 0.7% 0.0% 0.7% 0.7%
39c. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through the e-mail? Please check all that apply.

Mentor(s):

<table>
<thead>
<tr>
<th>Percentage</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>43.1%</td>
<td>24.2%</td>
<td>7.2%</td>
<td>2.6%</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>3.3%</td>
<td>1.3%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>0.0%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

39d. Based on the total amount of time you interact with your current or last four mentors, what percentage of time would you say you communicate through inter-office memo? Please check all that apply.

Mentor(s):

<table>
<thead>
<tr>
<th>Percentage</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>46.4%</td>
<td>26.1%</td>
<td>7.8%</td>
<td>3.3%</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>40. My mentor takes personal interest in my career.</td>
<td>19.6%</td>
<td>26.8%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>5.2%</td>
</tr>
<tr>
<td>41. My mentor gives me important assignments.</td>
<td>3.9%</td>
<td>18.3%</td>
<td>13.7%</td>
<td>2.0%</td>
<td>16.3%</td>
</tr>
<tr>
<td>42. My mentor gives me special coaching on projects.</td>
<td>6.5%</td>
<td>28.8%</td>
<td>5.9%</td>
<td>0.7%</td>
<td>13.1%</td>
</tr>
<tr>
<td>43. My mentor advises me on up-coming learning opportunities to increase my skills.</td>
<td>8.5%</td>
<td>24.8%</td>
<td>9.2%</td>
<td>0.7%</td>
<td>11.1%</td>
</tr>
<tr>
<td>44. My mentor listens to my personal problems.</td>
<td>10.5%</td>
<td>18.3%</td>
<td>8.5%</td>
<td>0.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>45. My mentor helps me coordinate my professional goals.</td>
<td>12.5%</td>
<td>23.5%</td>
<td>7.2%</td>
<td>0.7%</td>
<td>10.5%</td>
</tr>
<tr>
<td>46. My mentor accepts me for who I am.</td>
<td>18.3%</td>
<td>24.2%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>11.8%</td>
</tr>
<tr>
<td>47. My mentor is able to stimulate my interest to learn more.</td>
<td>14.4%</td>
<td>28.1%</td>
<td>2.6%</td>
<td>0.0%</td>
<td>8.5%</td>
</tr>
<tr>
<td>48. My mentor is able to motivate others.</td>
<td>13.1%</td>
<td>28.1%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>10.5%</td>
</tr>
<tr>
<td>49. My mentor has gained my confidence.</td>
<td>17.0%</td>
<td>30.1%</td>
<td>1.3%</td>
<td>0.7%</td>
<td>6.5%</td>
</tr>
<tr>
<td>50. My mentor is able to convey the norms of the profession of health care to me.</td>
<td>18.3%</td>
<td>24.2%</td>
<td>0.7%</td>
<td>0.0%</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td>13.7%</td>
<td>31.4%</td>
<td>2.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>51</td>
<td>My mentor is my friend.</td>
<td>11.1%</td>
<td>26.1%</td>
<td>7.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>My mentor is effective in communicating with me.</td>
<td>16.3%</td>
<td>30.7%</td>
<td>2.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>53</td>
<td>My mentor spends considerable time with me.</td>
<td>7.2%</td>
<td>25.5%</td>
<td>14.4%</td>
<td>2.6%</td>
</tr>
<tr>
<td>54</td>
<td>My mentor reassures my confidence when I am in doubts.</td>
<td>10.5%</td>
<td>30.1%</td>
<td>5.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>55</td>
<td>I feel comfortable with my mentor.</td>
<td>17.6%</td>
<td>30.1%</td>
<td>2.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>56</td>
<td>Is there anything else that you would like to tell us about your experience with mentors at NYCC? Please write down your comments in the space below.</td>
<td>7.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Would you like to participate in a follow-up, forty-five minutes, in-depth personal interview for this study?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes....................................................................................................</td>
<td>5.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No.....................................................................................................</td>
<td>47.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57a</td>
<td>If your response to item #57 is “Yes”, please complete the accompanying form by leaving your initials on both your survey and the form for matching.</td>
<td>2.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57b</td>
<td>If your response to item #57 is “No”, please complete the accompanying form to indicate your interest in receiving a summary of the study results and where the results should be sent to you.</td>
<td>2.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix M: Summary of Health Care Faculty Survey (N=96)

Mentoring Faculty Results:

1. How would you like to be identified?
   - African American.................................0.0%
   - European American.........................63.5%
   - Hispanic American...........................0.0%
   - Mainland Puerto Rico........................0.0%
   - Mexican American............................1.0%
   - Native American...............................7.3%
   - Other................................................28.2%

2. Please check your appropriate age:
   - 0-25yrs............................................4.2%
   - 25-30yrs..........................................6.3%
   - 30-35yrs..........................................4.2%
   - 35-40yrs..........................................21.9%
   - 40-45yrs..........................................21.9%
   - 45-50yrs..........................................21.9%
   - Over 50yrs........................................19.0%

3. Gender:
   - Female..............................................53.1%
   - Male................................................44.8%

4. Marital Status:
   - Married............................................63.5%
   - Single..............................................25.0%
   - Separated.........................................0.0%
   - Divorced..........................................7.3%
   - Widowed............................................1.0%

5. When did you join the faculty/staff at the New York Chiropractic College?
   Please specify......................................94.8%

6. What is your present rank?
   - Instructor.........................................9.4%
   - Assistant Professor...........................18.8%
   - Associate Professor...........................13.5%
   - Professor..........................................5.2%
   - Adjunct.............................................5.2%
   - Administrator....................................13.5%
   - Other................................................42.7%
6a. If “Other”, in what capacity are you affiliated with NYCC? Please indicate: 41.7%

7. Did you attend a Health Care School?
   Yes .............................................................................................. 49.0%
   No .............................................................................................. 51.0%

8. Do you have a health care practice in addition to your responsibilities at NYCC?
   Yes .............................................................................................. 31.3%
   No .............................................................................................. 67.3%

8a. If “Yes”, what is your current practice?
   Full-time ........................................................................................ 5.2%
   Part-time ..................................................................................... 26.0%

8b. If you have a health care practice, please indicate the category of your practice.
   Solo ............................................................................................... 20.8%
   Group practice ............................................................................ 6.3%
   Community practice .................................................................... 1.0%
   Other ........................................................................................... 3.1%

8c. If “Other”, please specify: 3.1%

9. What is the highest degree that you hold?
   D.C .............................................................................................. 41.7%
   MD .............................................................................................. 0.0%
   PhD .............................................................................................. 4.2%
   DC/PhD ........................................................................................ 1.0%
   MD/PhD ........................................................................................ 1.0%
   Sc.D .............................................................................................. 2.1%
   Ed.D .............................................................................................. 1.0%
   J.D .............................................................................................. 1.0%
   M. Sc ............................................................................................ 5.2%
   M. Ed ............................................................................................ 4.2%
   M.A .............................................................................................. 1.0%
   Other ........................................................................................... 26.0%

9a. If “Other”, please specify: 29.2%

9b. What other professional degrees or certificates do you hold? Please specify: 33.3%

10. What is your specialization? Please specify:
51.0%

11. Are you currently doing research in a Health Care Center or other medical facility?
   Yes……………………………………………………………………..15.6%
   No………………………………………………………………………77.1%

11a. If “Yes”, what is your research interest? Please indicate:
   17.7%

11b. If “Yes”, is your research site on-campus or off-campus?
   On-campus……………………………………………………………….11.5%
   Off-campus………………………………………………………………..8.3%

11c. If your research site is off-campus, please specify City and State:
   8.3%

12. Do you currently have responsibilities at other Health Care School in addition to your responsibilities at NYCC?
   Yes………………………………………………………………………..3.1%
   No………………………………………………………………………..86.5%

13. To what health-related organizations do you belong?
   34.4%

14. Have you ever had a protégé?
   Yes……………………………………………………………………….37.5%
   No………………………………………………………………………..51.0%

15. How many protégés have you had since coming to NYCC? Please include your current protégé, if any, and insert the number of current or past protégés on the appropriate line:

   Protégé(s):

   Current:  
               1  2  3  4
               7.3% 6.3% 5.2% 8.3%
   Past:     
               3.1% 4.2% 8.3% 12.5%

15a. Over 4, please specify:

   5  6  7  8  9  10
   Current: 0.0% 1.0% 3.1% 1.0% 0.0% 2.1%
   Past:    0.0% 2.1% 0.0% 0.0% 0.0% 10.4%

16. Please tell us about your current and any of your last four protégés since coming to NYCC?
   Protégé(s):

   Current:  
               1  2  3  4
               1st trimester student 3.1% 1.0% 1.0% 2.1%
   Relationship still exist 2.1% 1.0% 1.0% 1.0%
   Relationship has ended 2.1% 0.0% 0.0% 1.0%
<table>
<thead>
<tr>
<th>Trimester</th>
<th>Still Exist</th>
<th>Relationship Ended</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd trimester</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>3.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>3rd trimester</td>
<td>4.2%</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>4th trimester</td>
<td>6.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>7.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>5th trimester</td>
<td>6.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>6.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>6th trimester</td>
<td>7.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>8.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>7th trimester</td>
<td>5.2%</td>
<td>3.1%</td>
</tr>
<tr>
<td></td>
<td>5.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>8th trimester</td>
<td>10.4%</td>
<td>3.1%</td>
</tr>
<tr>
<td></td>
<td>9.4%</td>
<td>3.1%</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>9th trimester</td>
<td>10.4%</td>
<td>4.2%</td>
</tr>
<tr>
<td></td>
<td>8.3%</td>
<td>5.2%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>10th trimester</td>
<td>7.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td></td>
<td>7.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>5.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td></td>
<td>4.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td></td>
<td>2.1%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

16a. If “Other”, please explain:
9.4%

17. What is the appropriate age of your current and any of your last four protégés?
Protégé(s): 1 2 3 4
Older               4.2%      4.2%     5.2%     2.1%
Same age              2.1%      2.1%     0.0%     2.1%
Younger             18.8%   17.7%   12.5%   24.0%

18. What is the gender of your current and any of your last four protégés?
   Protégé(s):      1   2   3   4
   Male             17.7%    22.9%   13.5%  10.4%
   Female           8.3%    16.7%     8.3%    9.4%

19. Is it important to you that your protégé is the same gender as you?
   Yes…………………………………………………………………0.0%
   No…………………………………………………………………40.6%

19a. Please explain: 9.4%

20. Is your current and any of your last four protégés the same ethnicity/race as you? Please check all that apply.
   Protégé(s):      1   2   3   4
   Same              24.0%   18.8%  13.5%  20.8%
   Different         2.1%     8.3%    6.3%    4.2%

21. Is it important to you that your protégé is the same ethnicity/race as you?
   Yes…………………………………………………………………0.0%
   No…………………………………………………………………..40.6%

21a. Please explain: 10.4%

22. Do you feel it is important to have protégés during health care training?
   Yes………………………………………………………………75.0%
   No………………………………………………………………11.5%

22a. If your response to item #22 is “No”, please explain: 11.5%

23. Do you feel it is important to have one or more protégé during health care training?
   One…………………………………………………………….14.6%
   More…………………………………………………………..59.4%
   None…………………………………………………………...5.2%

23a. Please explain: 47.9%
24. If you feel it is important to have one or more protégé during health care training, would you like to have formal protégé, informal protégé, or a combination of both?
   Formal protégé(s).................................................................5.2%
   Informal protégé(s)............................................................16.7%
   Combination of both..........................................................55.2%

25. If you feel it is important to have one or more protégé during health care training, which of these career development functions would you say best describe why you would like to have protégés? Please check all that apply.
   I want to sponsor my students..............................................8.3%
   I want to expose my students to things that they need to know........58.3%
   I want to coach my students................................................32.3%
   I want to give my students important assignments...................11.5%
   I want to coordinate the professional goals of my students..........15.6%
   I want to stimulate the interest of my students to learn more......60.4%
   I want to convey the norms of the health care profession to my students…30.2%
   I want to develop my student’s professional development skills.......37.5%
   I want to give my students career development advice.............32.3%
   I want to give my students valuable career development information...43.8%
   Other..................................................................................15.6%

25a. If “Other”, please indicate:
   17.7%

26. If you feel it is important to have one or more protégé during health care training, which of these psychosocial development functions would you say best describe why you would like to have protégés? Please check all that apply.
   I want to listen to my students..............................................44.8%
   I want to take personal interest in my students........................43.8%
   I want to affirm my students.................................................31.3%
   I want to counsel my students..............................................32.3%
   I want to accept my students...............................................19.8%
   I want to be friends with my students....................................11.5%
   I want to motivate my students............................................64.6%
   I want my students to gain my confidence............................32.3%
   I want my students to feel comfortable with me......................38.5%
   I want to talk to my students..............................................26.0%
   I want to spend time with my students.................................16.7%
   Other..................................................................................7.3%

26a. If “Other”, please indicate:
   10.4%

27. Did you meet your current and any of your last four protégés formally or informally?
   Protégé(s): 1 2 3 4
28. If you met your current and any of your last four protégés formally, was your protégé assigned to you?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>8.3%</td>
<td>6.3%</td>
<td>6.3%</td>
<td>9.4%</td>
</tr>
<tr>
<td>No</td>
<td>10.4%</td>
<td>8.3%</td>
<td>9.4%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

29. If you met your current and any of your last four protégés informally, who initiated the meeting?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My protégé(s)</td>
<td>8.3%</td>
<td>9.4%</td>
<td>11.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td>My self</td>
<td>5.2%</td>
<td>4.2%</td>
<td>1.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Other</td>
<td>3.1%</td>
<td>2.1%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

29a. Please explain briefly for each protégé relationship: 15.6%

30. If you have more than one protégé, which of the following will best describe why you have more than one protégé while training at NYCC? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship did not work out</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>I was unable to meet my protégé’s needs</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My protégé’s career/psychosocial needs changed</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>I was uncomfortable with my protégé</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My protégé demanded too much from me</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>I was too busy</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>We went our own ways</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>My protégé left NYCC</td>
<td>3.1%</td>
<td>2.1%</td>
<td>1.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>My protégé’s career needs are met by a variety of professionals</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>5.2%</td>
<td>5.2%</td>
<td>5.2%</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

30a. If “Other”, please explain: 12.5%

31. For how long have you known your current and any of your last four protégés? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>
One to three months          2.1%  1.0%  0.0%  3.1%  
Three to six months            0.0%  5.2%  2.1%  4.2%  
Six to nine months           3.1%  2.1%  4.2%  1.0%  
Nine months to one year      2.1%  5.2%  1.0%  5.2%  
One year or more            16.7%  15.6%  13.5%  12.5%  

32. How often do you meet with your current and any of your last four protégés?  
Protégé(s):  
                      1     2     3     4  
Once a week           3.1%  1.0%  3.1%  7.3%  
Once every other week  3.1%  2.1%  1.0%  3.1%  
Once a month           3.1%  3.1%  3.1%  5.2%  
Once every other month 0.0%  1.0%  0.0%  0.0%  
Once every trimester   1.0%  0.0%  0.0%  0.0%  
As often as needed    12.5%  12.5%  10.4%  8.3%  
Other                  3.1%  3.1%  3.1%  3.1%  

32a. If “Other”, please explain:  
3.1%  

33. On the average, how much time do you spend with your current and any of your last four protégés when you meet?  
Protégé(s):  
                      1     2     3     4  
0 to five minutes       0.0%  1.0%  0.0%  0.0%  
Less than fifteen minutes 7.3%  6.3%  6.3%  8.3%  
Less than thirty minutes 4.2%  4.2%  3.1%  7.3%  
Forty-five minutes      3.1%  2.1%  2.1%  1.0%  
One hour               4.2%  2.1%  1.0%  1.0%  
One hour or more        0.0%  0.0%  1.0%  3.1%  
As much time as needed  5.2%  3.1%  3.1%  6.3%  

34. At which stage of the mentoring relationship would you say you are in with your current and any of your last four protégés? Please check all that apply.  
Protégé(s):  
                      1     2     3     4  
The relationship just started  2.1%  2.1%  0.0%  3.1%  
The relationship is increasing  3.1%  4.2%  4.2%  7.3%  
The relationship is decreasing  2.1%  3.1%  2.1%  1.0%  
The relationship is changing in a positive way because my protégé’s career needs are changing 8.3%  11.5%  4.2%  4.2%  
The relationship is changing in a negative way because my protégé’s career needs are changing 0.0%  0.0%  0.0%  0.0%  
The relationship is changing in a positive way because my protégé’s psychosocial needs are changing 3.1%  2.1%  2.1%  2.1%  
The relationship is changing in a negative way because my protégé’s
34a. If “Other”, please explain:
   2.1%

35. If you have ended a mentoring relationship with one or more of your protégés, which of the following would best describe why your mentoring relationship ended? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship did not work out</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>I could not meet the needs of my protégé</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>The career needs of my protégé changed</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.1%</td>
<td>2.1%</td>
</tr>
<tr>
<td>The psychosocial needs of my protégé changed</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>I was uncomfortable with my protégé</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My protégé demanded too much from me</td>
<td>0.0%</td>
<td>2.1%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My protégé was too busy</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>We went our own ways</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>I was too busy</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>My protégé left NYCC/graduated</td>
<td>8.3%</td>
<td>9.4%</td>
<td>5.2%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

35a. If “Other”, please explain:
   2.1%

36. Which of these career development functions would you say best describe how you have helped your current and any of your last four protégés? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I sponsor my protégé</td>
<td>4.2%</td>
<td>3.1%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>I expose my protégé to things he/she need to know</td>
<td>20.8%</td>
<td>16.7%</td>
<td>12.5%</td>
<td>22.9%</td>
</tr>
<tr>
<td>I coach my protégé when he/she needs coaching</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>15.6%</td>
</tr>
<tr>
<td>I give my protégé opportunities to develop his/her skills</td>
<td>13.5%</td>
<td>10.4%</td>
<td>8.3%</td>
<td>14.6%</td>
</tr>
<tr>
<td>I look out for my protégé by giving him/her advice</td>
<td>14.6%</td>
<td>13.5%</td>
<td>13.5%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Other</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

36a. If “Other”, please explain:
1.0%

37. Which of these psychosocial development functions would you say best describe why you are able to help your current and any of your last four protégés? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I admire my protégé</td>
<td>7.3%</td>
<td>7.3%</td>
<td>2.1%</td>
<td>3.1%</td>
</tr>
<tr>
<td>I accept my protégé for who he/she is</td>
<td>15.6%</td>
<td>10.4%</td>
<td>9.4%</td>
<td>12.5%</td>
</tr>
<tr>
<td>I affirm my protégé</td>
<td>8.3%</td>
<td>8.3%</td>
<td>5.2%</td>
<td>8.3%</td>
</tr>
<tr>
<td>I counsel my protégé</td>
<td>11.5%</td>
<td>10.4%</td>
<td>9.4%</td>
<td>11.5%</td>
</tr>
<tr>
<td>My protégé is like my friend</td>
<td>7.3%</td>
<td>3.1%</td>
<td>4.2%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Other</td>
<td>2.1%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

37a. If “Other”, please explain: 2.1%

38. Would you say that you are satisfied with the quality of mentorship that you give to your current and any of your last four protégé?

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>19.8%</td>
<td>16.7%</td>
<td>14.6%</td>
<td>20.8%</td>
</tr>
<tr>
<td>No</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Somewhat</td>
<td>2.1%</td>
<td>3.1%</td>
<td>4.2%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

38a. Please explain: 4.2%

39. How do you communicate with your current and any of your last four protégé? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to face</td>
<td>18.8%</td>
<td>13.5%</td>
<td>14.6%</td>
<td>20.8%</td>
</tr>
<tr>
<td>On the phone</td>
<td>8.3%</td>
<td>7.3%</td>
<td>6.3%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Through others</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Through e-mail</td>
<td>9.4%</td>
<td>12.5%</td>
<td>7.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Inter-office memo</td>
<td>2.1%</td>
<td>0.0%</td>
<td>2.1%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

39a. If “Other”, please explain: 0.0%

40. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through face-to-face contact? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to face</td>
<td>18.8%</td>
<td>13.5%</td>
<td>14.6%</td>
<td>20.8%</td>
</tr>
</tbody>
</table>
### 40a. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through telephone contact? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>17.7%</td>
<td>14.6%</td>
<td>11.5%</td>
<td>21.9%</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>2.1%</td>
<td>1.0%</td>
<td>2.1%</td>
<td>2.1%</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### 40b. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through others?

Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>18.8%</td>
<td>15.6%</td>
<td>14.6%</td>
<td>24.0%</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>4.2%</td>
<td>4.2%</td>
<td>3.1%</td>
<td>4.2%</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### 40c. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through e-mail?

Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>15.6%</td>
<td>12.5%</td>
<td>13.5%</td>
<td>20.8%</td>
</tr>
<tr>
<td>20 to 40%</td>
<td>4.2%</td>
<td>4.2%</td>
<td>3.1%</td>
<td>5.2%</td>
</tr>
<tr>
<td>40 to 60%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>60 to 80%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>80 to 100%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### 40d. Based on the total amount of time you interact with your current and any of your last four protégés, what percentage of time would you say you communicate through inter-office memo? Please check all that apply.

<table>
<thead>
<tr>
<th>Protégé(s):</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20%</td>
<td>20.8%</td>
<td>17.7%</td>
<td>16.7%</td>
<td>26.0%</td>
</tr>
</tbody>
</table>
203

Questions | Strongly agree | Agree | Disagree | Strongly disagree | Don’t know/NA

41. I take personal interest in my protégé’s career. | 13.5% | 19.8% | 2.1% | 0.0% | 0.0%

42. I advise my protégé. | 12.5% | 19.8% | 2.1% | 0.0% | 1.0%

43. I coach my protégé on special projects. | 5.2% | 25.0% | 5.2% | 0.0% | 0.0%

44. I inform my protégé of up-coming learning opportunities to increase his/her skills. | 8.3% | 20.8% | 4.2% | 1.0% | 1.0%

45. I listen to my protégé’s personal problems. | 8.3% | 19.8% | 6.3% | 1.0% | 1.0%

46. I help my protégé coordinate his/her professional goals. | 10.4% | 21.9% | 4.2% | 0.0% | 0.0%

47. I accept my protégé for who he/she is. | 18.8% | 14.6% | 0.0% | 1.0% | 1.0%

48. I stimulate my protégé’s interest to learn more. | 15.6% | 16.7% | 1.0% | 0.0% | 2.1%

49. I am able to motivate my protégé. | 10.4% | 20.8% | 1.0% | 0.0% | 3.1%

50. My protégé has gained my confidence. | 10.4% | 22.9% | 1.0% | 0.0% | 1.0%

51. I am able to convey the norms of the profession of health care to my protégé. | 8.3% | 18.8% | 2.1% | 0.0% | 7.3%

52. My protégé is my friend. | 3.1% | 16.7% | 9.4% | 4.2% | 2.1%

53. I am effective in communicating with my protégé. | 9.4% | 22.9% | 2.1% | 0.0% | 1.0%

54. I spend considerable time with my protégé. | 2.1% | 20.8% | 10.4% | 2.1% | 1.0%

55. I assure my protégé when he/she has doubts. | 10.4% | 21.9% | 3.1% | 0.0% | 1.0%

56. I feel comfortable with my protégé. | 15.6% | 18.8% | 0.0% | 0.0% | 1.0%

57. Is there anything else that you would like to tell us about your experience with protégés at NYCC? Please write down your comments in the space below. 8.3%

58. Would you like to participate in a follow-up, forty-five minutes, in-depth personal interview for this study?
Yes……………………………………………………………………....7.3%
No……………………………………………………………………..31.3%

58a. If your response to item #58 is “Yes”, please complete the accompanying form by leaving your initials on both your survey and the form for matching.

58b. If your response to item #58 is “No”, please complete the accompanying form to indicate your interest in receiving a summary of the study result and where the result should be sent to you.
Appendix N: Frequency Distribution of Faculty Demographic Characteristics at NYCC

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender N=96</strong></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>43</td>
</tr>
<tr>
<td>F</td>
<td>51</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
</tr>
<tr>
<td><strong>Age N=96</strong></td>
<td></td>
</tr>
<tr>
<td>0-25yrs</td>
<td>4</td>
</tr>
<tr>
<td>25-30yrs</td>
<td>6</td>
</tr>
<tr>
<td>30-35yrs</td>
<td>4</td>
</tr>
<tr>
<td>35-40yrs</td>
<td>21</td>
</tr>
<tr>
<td>40-45yrs</td>
<td>21</td>
</tr>
<tr>
<td>45-50yrs</td>
<td>21</td>
</tr>
<tr>
<td>Over 50yrs</td>
<td>17</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
</tr>
<tr>
<td><strong>Ethnicity N=96</strong></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>0</td>
</tr>
<tr>
<td>European American</td>
<td>61</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>0</td>
</tr>
<tr>
<td>Mainland Puerto Rico</td>
<td>0</td>
</tr>
<tr>
<td>Mexican American</td>
<td>1</td>
</tr>
<tr>
<td>Native American</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>24</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
</tr>
<tr>
<td><strong>Terminal Degree N=96</strong></td>
<td></td>
</tr>
<tr>
<td>D. C</td>
<td>40</td>
</tr>
<tr>
<td>M. D</td>
<td>0</td>
</tr>
<tr>
<td>Ph. D</td>
<td>4</td>
</tr>
<tr>
<td>D.C/Ph. D</td>
<td>1</td>
</tr>
<tr>
<td>MD/Ph. D</td>
<td>1</td>
</tr>
<tr>
<td>Sc. D</td>
<td>2</td>
</tr>
<tr>
<td>Ed. D</td>
<td>1</td>
</tr>
<tr>
<td>J. D</td>
<td>1</td>
</tr>
<tr>
<td>M. Sc</td>
<td>5</td>
</tr>
<tr>
<td>M. Ed</td>
<td>4</td>
</tr>
<tr>
<td>M. A</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
</tr>
<tr>
<td>No Response</td>
<td>11</td>
</tr>
</tbody>
</table>
## Appendix O: Professional Profile of NYCC Faculty

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Rank N=96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructor</td>
<td>9</td>
<td>9.4</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>18</td>
<td>18.8</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>13</td>
<td>13.5</td>
</tr>
<tr>
<td>Professor</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Adjunct</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Administrator</td>
<td>13</td>
<td>13.5</td>
</tr>
<tr>
<td>Other</td>
<td>33</td>
<td>34.4</td>
</tr>
<tr>
<td>Attended a Health Care Training School N= 96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47</td>
<td>49.0</td>
</tr>
<tr>
<td>No</td>
<td>49</td>
<td>51.0</td>
</tr>
<tr>
<td>Practice Profile N=30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Time</td>
<td>5</td>
<td>17.0</td>
</tr>
<tr>
<td>Part Time</td>
<td>25</td>
<td>83.0</td>
</tr>
<tr>
<td>Important if Protégé is same Ethnicity/ Race N=39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>100</td>
</tr>
<tr>
<td>Important if Protégé is same Gender N=39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>
Appendix P: Frequency Distribution of Student Demographic Characteristics at NYCC

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender N=153</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>67</td>
<td>43.8</td>
</tr>
<tr>
<td>F</td>
<td>86</td>
<td>56.2</td>
</tr>
<tr>
<td>No Response</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Age N=153</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-25yrs</td>
<td>61</td>
<td>39.9</td>
</tr>
<tr>
<td>25-30yrs</td>
<td>64</td>
<td>41.8</td>
</tr>
<tr>
<td>30-35yrs</td>
<td>17</td>
<td>11.1</td>
</tr>
<tr>
<td>35-40yrs</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>40-45yrs</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>45-50yrs</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Over 50yrs</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No Response</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Ethnicity N=153</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>European American</td>
<td>87</td>
<td>56.9</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>6</td>
<td>3.9</td>
</tr>
<tr>
<td>Mainland Puerto Rico</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Mexican American</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Native American</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
<td>32.6</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Trimesters N=153</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1\textsuperscript{st} Trimester</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>2\textsuperscript{nd} Trimester</td>
<td>6</td>
<td>3.9</td>
</tr>
<tr>
<td>3\textsuperscript{rd} Trimester</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>4\textsuperscript{th} Trimester</td>
<td>5</td>
<td>3.3</td>
</tr>
<tr>
<td>5\textsuperscript{th} Trimester</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>6\textsuperscript{th} Trimester</td>
<td>11</td>
<td>7.2</td>
</tr>
<tr>
<td>7\textsuperscript{th} Trimester</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>8\textsuperscript{th} Trimester</td>
<td>67</td>
<td>43.8</td>
</tr>
<tr>
<td>9\textsuperscript{th} Trimester</td>
<td>23</td>
<td>15.0</td>
</tr>
<tr>
<td>10\textsuperscript{th} Trimester</td>
<td>30</td>
<td>19.6</td>
</tr>
</tbody>
</table>
Appendix Q: Frequency Distribution of Student Gender by Trimester at NYCC

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Trimester</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3rd Trimester</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4th Trimester</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>5th Trimester</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>6th Trimester</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>7th Trimester</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8th Trimester</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>9th Trimester</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>10th Trimester</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>86</td>
<td>67</td>
</tr>
</tbody>
</table>
Appendix R: Frequency Distribution of Students Who Had a Mentor by Gender and Ethnicity

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Ever Had a Mentor? N=153</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>90</td>
</tr>
<tr>
<td>No</td>
<td>63</td>
</tr>
<tr>
<td>Have Current Mentor? N=90</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>80</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
</tr>
<tr>
<td>Importance of Same Gender Mentor N=90</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7</td>
</tr>
<tr>
<td>No</td>
<td>83</td>
</tr>
<tr>
<td>Importance of Same Ethnicity/ Race Mentor N=90</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>87</td>
</tr>
</tbody>
</table>
Appendix S: Frequency Distribution of Students Who Perceived Mentoring By Trimester

<table>
<thead>
<tr>
<th>Trimester of Students in Training</th>
<th>Yes</th>
<th>Percent of Responses</th>
<th>Percent of Total Responses</th>
<th>No</th>
<th>Percent of Total Responses</th>
<th>Percent of Yes Responses per Trimester</th>
<th>Percent of No Responses per Trimester</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Trimester</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>8.3</td>
<td>4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>3rd Trimester</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.4</td>
<td>0.7</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>4th Trimester</td>
<td>1</td>
<td>1.2</td>
<td>4</td>
<td>5.6</td>
<td>2.6</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>5th Trimester</td>
<td>2</td>
<td>2.4</td>
<td>7</td>
<td>9.7</td>
<td>4.6</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>6th Trimester</td>
<td>2</td>
<td>2.4</td>
<td>9</td>
<td>12.5</td>
<td>5.9</td>
<td>18</td>
<td>82</td>
</tr>
<tr>
<td>7th Trimester</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.4</td>
<td>0.7</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>8th Trimester</td>
<td>36</td>
<td>44.4</td>
<td>31</td>
<td>43.0</td>
<td>20.3</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>9th Trimester</td>
<td>17</td>
<td>21</td>
<td>6</td>
<td>8.3</td>
<td>4</td>
<td>74</td>
<td>26</td>
</tr>
<tr>
<td>10th Trimester</td>
<td>23</td>
<td>28.4</td>
<td>7</td>
<td>9.7</td>
<td>4.6</td>
<td>77</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>100</td>
<td>53</td>
<td>72</td>
<td>100</td>
<td>47</td>
<td>53</td>
</tr>
</tbody>
</table>

N=153
Appendix T: Frequency Distribution of Students by Trimester Who Perceived the Impact of Mentoring

<table>
<thead>
<tr>
<th>Trimester of Students in Training</th>
<th>Question #24: Function of Career Development while in Training</th>
<th>Percent of Responses</th>
<th>Trimester of Students in Training</th>
<th>Question #25: Function of Psychosocial Development while in Training</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>0.7</td>
<td>3</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>6.6</td>
<td>5</td>
<td>9</td>
<td>7.2</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>8.1</td>
<td>6</td>
<td>10</td>
<td>8.0</td>
</tr>
<tr>
<td>8</td>
<td>67</td>
<td>49.3</td>
<td>8</td>
<td>63</td>
<td>50.4</td>
</tr>
<tr>
<td>9</td>
<td>22</td>
<td>16.1</td>
<td>9</td>
<td>19</td>
<td>15.2</td>
</tr>
<tr>
<td>10</td>
<td>26</td>
<td>19.1</td>
<td>10</td>
<td>23</td>
<td>18.4</td>
</tr>
<tr>
<td>Total</td>
<td>136</td>
<td>100</td>
<td>Total</td>
<td>125</td>
<td>100</td>
</tr>
</tbody>
</table>

Percent of Yes Responses: 50% 50% 50% 48% 54% 47% 52% 48%

Percent of No Responses: 50% 50% 50% 48% 46% 47% 48% 48%
Appendix U: Frequency Distribution of Students by Trimester Who Perceived the Benefits of Mentoring

<table>
<thead>
<tr>
<th>Trimester</th>
<th>Frequency of Students who perceived career development function of mentoring</th>
<th>Percentage of Responses</th>
<th>Trimester</th>
<th>Frequency of students who perceived psychosocial development function of mentoring</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>4.1</td>
<td>5</td>
<td>3</td>
<td>4.1</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>2.7</td>
<td>6</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td>8</td>
<td>36</td>
<td>49.3</td>
<td>8</td>
<td>36</td>
<td>49.3</td>
</tr>
<tr>
<td>9</td>
<td>16</td>
<td>21.9</td>
<td>9</td>
<td>14</td>
<td>19.2</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
<td>21.9</td>
<td>10</td>
<td>18</td>
<td>24.7</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

N = 73 for all tables.
## Appendix V: Health Care Faculty Satisfied with the Mentoring They Offered

<table>
<thead>
<tr>
<th>Gender</th>
<th>N=94</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>60</td>
</tr>
</tbody>
</table>